

2009

# An investigation of creative potential in high school musicians: recognizing, promoting, and assessing creative ability through music composition

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AN INVESTIGATION OF CREATIVE POTENTIAL IN HIGH SCHOOL MUSICIANS:  
RECOGNIZING, PROMOTING, AND ASSESSING CREATIVE ABILITY  
THROUGH MUSIC COMPOSITION

A Dissertation  
Submitted to the Graduate Faculty of the  
Louisiana State University and  
Agricultural and Mechanical College  
in partial fulfillment of the  
requirements for the degree of  
Doctor of Philosophy

in

The College of Music and Dramatic Arts

by  
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December 2009

## ACKNOWLEDGEMENTS

First, I would like to thank the members of my committee whose insight guided my steps throughout this process. Thank you to Evelyn Orman for inspiring me to develop my own philosophies regarding music education and musical creativity, to Jim Byo for challenging me to ask pertinent questions that were meaningful to the field and to me personally, to Jennifer Jolly for encouraging my understanding about giftedness, creativity, and talent in children, and to Grover Waldrop for his support during the process.

Next, my heartfelt thanks goes to the exceptional teachers, Joseph Nassar and Fred Wild, who were willing to share their valuable class time and explore the possibilities of developing creativity and musicianship in their students. Their insight was invaluable and taught me so much.

I would also like to offer genuine gratitude to friends who provided important suggestions and moral support throughout this process: Amanda Schlegel, Alan Clark, Rebecca Carter, and Nan Baker Richerson.

My deepest appreciation and thanks goes to Jane Cassidy, my advisor, whose mentorship and professionalism provided fertile ground for the development of this research and whose friendship provided much needed support throughout this journey.

I would like to thank my mother and father for their support, love, and belief in me, which never wavered, even when I was unsure. Finally, I dedicate this dissertation to my children without whom I could never have completed this “mid-life” doctorate. Thank you Kim for putting up with having a mother in graduate school at the same time you were. Thank you Steven for being a musical inspiration. Thanks to both of you for your understanding and always being sure that I could accomplish anything.

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## ABSTRACT

Student attitudes and teacher perceptions regarding creativity, composition, and its assessment possibilities were investigated using mixed-method techniques in two differing high school music programs. A Talented Music Program, providing accelerated instruction to gifted musicians (with composition instruction) and a typical performance based band program (composition never taught) were examined. Students participated in a six-week composition program. Final compositions were evaluated by differing judging groups: teachers, students, and expert composers. Data were collected through interviews, observations, attitude surveys, student and teacher journals, and composition assessment.

Analysis of teacher perceptions revealed themes indentifying challenges to creativity development in high school classrooms: tradition of performance culture, time required, large class setting, and teacher preparation. Following composition instruction, the band director felt that, with solid preparation and engaging activities, composition instruction was meaningful. He discovered high levels of student interest, in depth musical learning, and believed the creative effort of his students was exceptional. The talented music teacher addressed the themes in different ways. Small class setting was a benefit, but providing enough time for the thought intensive activity of composition was a challenge. Both teachers expressed surprise that students who were not exceptional performers composed some of the most creative compositions and the sense of student accomplishment was dramatic.

Student attitude, assessed through interviews, journals, and creativity attitude surveys, indicated that in the band program, positive attitude towards composition increased significantly from pre to post instruction, while the talented music students, with previous composition experience, showed no change in attitude. Students also believed that there was not enough time

spent on composition activities and that creativity development was important because it promoted individuality and helped to develop greater appreciation for musical details in the music they performed.

Composition assessment, conducted using Amabile's *consensual assessment technique*, revealed that composers were the least reliable judges of creativity, craftsmanship, and aesthetic appeal in student compositions. The student groups were moderately reliable in assessment of their own compositions and teachers were highly reliable at judging all three dimensions. Level of student composition experience correlated with craftsmanship and aesthetic appeal, but not with creativity.

## CHAPTER 1: INTRODUCTION

In his address to the American Psychological Association in 1950, J. P. Guilford posed two important questions to his audience: “1) How can we discover creative promise in our children and our youth? And 2) How can we promote the development of creative personalities?” (Guilford, p. 445). These questions invited several decades of research into the creative process, the creative personality, and the creative product. Creativity exists in many domains and certainly in the area of music. Reimer (2003) suggests that musical creativity exists in all people and on a continuum from the creative acts of very young children to the creativity found in eminent artists such as Beethoven or Picasso. “*The difference is not in kind—only in degree.* To influence that degree for all students, no matter their age or their capacity, is, I believe, a major obligation of music education” (p. 108). Creativity can be experienced in many roles of musicianship: performing, improvising, listening, and certainly in the art of composition. Reimer calls on music educators to encourage creativity in each of these roles and emphasizes that creativity education is role specific.

In 1959, the Ford Foundation initiated the Young Composers Project (YCP) as a way to improve the climate and appreciation for the arts in the United States. After consultation with music composers such as Norman Dello Joio, young composers were placed in public school systems so that they could compose directly for bands, choruses, and other musical ensembles. It was hoped that this process would provide experience for the composers and expand the musical experiences for students in the schools. With continued support from the Ford Foundation, MENC expanded the program in 1963 and named it the Contemporary Music Project for Creativity in Music Education (CMP). The purpose of this new program of workshops and seminars was to increase the emphasis on the creative aspect of music in the public schools,

promote understanding and acceptance of contemporary music, reduce the compartmentalization that existed between music education and composers, and discover creative talents in the students of the schools. The idea was not to create great composers, but to instill in students that “music is man-made, created through human imagination and skill, and subject to decisions, changes and interpretations” (Contemporary Music Project for Creativity in Music Education, 1971, p. 33). While the program was deemed a success, it also uncovered a need for better teacher and student education in music. In 1965, The Seminar on Comprehensive Musicianship, held at Northwestern University, recommended that comprehensive musicianship include: (a) compositional processes and writing skills; (b) musical analysis and aural skills; and (c) history, literature, and performance skills.

From 1965 to 1972, the Manhattanville Music Curriculum Project (MMCP) introduced goals for music educators that were similar to those of the Contemporary Music Project. The objectives of the project were to develop a music curriculum and related materials containing a sequential learning program for students in elementary through high school and to discover methods for training teachers to use the curriculum successfully. Using Jerome Bruner’s idea of the spiral curriculum, the focus was on the unity and interaction of musical factors, not the isolation of them. The MMCP stated that a child should be provided with opportunities for personal judgment and involvement, individual and intellectual growth, and development of personal creative talents. This program emphasized composition and a comprehensive study of music through a discovery approach. In the project summary report Thomas (1970) asked, “Have you ever considered that most students never have the chance to exercise musical judgment in the classroom . . . and that a composition is merely a statement of someone’s musical thoughts, and everyone has musical thoughts?” (p. iii). In spite of recommendations from the

Manhattanville Music Curriculum Project and the Contemporary Music Project to move toward a more comprehensive music curriculum, curricular changes were not widespread. Regrettably, opportunities to experience music in a comprehensive manner have not been included in the music educational process in most public school settings. The focus in most schools has continued to be the development of ensemble performance (Hickey, 1997).

In 1994, the Music Educators National Conference (MENC) published the *National Standards for Arts Education in Dance, Music, Theatre, and the Visual Arts*, which “ensure that the study of the arts is disciplined and well focused, and that arts instruction has a point of reference for assessing its results” (Consortium of National Arts Education Associations, 1994, p. 9). The rationale statement for developing the nine music standards emphasizes that performing, creating, and responding to music are the fundamental processes of music in which humans take part and that *every* course in music, should provide instruction in creating, performing, listening to, and analyzing music. These voluntary standards contain music education objectives in the areas of singing, performing on instruments, improvising, composing, reading and notating music, music listening and analysis, music evaluation, understanding relationships between music and other disciplines, and understanding music in relation to history and culture. The fourth content standard, *Composing and arranging music within specified guidelines*, clearly identifies composition as one of the important areas of instruction. For students in grades 9 – 12, the *Composing and Arranging, Standard 4 Benchmarks* identify the first proficient achievement standard in composition as “Students compose music in several distinct styles, demonstrating creativity in using the elements of music for expressive effect” (National Association for Music Education, 2002, p. 90). This standard should cause music educators to ask some critical questions of themselves and the profession. How many of our



students in school music programs will accomplish this music composition standard in their music classrooms?

Strand (2006) surveyed 339 Indiana music educators regarding their use of composition in the classroom. She found that 88% of respondents indicated that they used composition in the classroom, but only 5.9% felt that they used it often. More than one third (34.5%) of responding teachers reported using composition very rarely, or never. Reasons given for using composition in the classroom were: children learn more through composing, composition is used to enrich other learning, and the desire to incorporate the National Standards in the classroom. Write-in responses indicated that teachers using composition felt that composing “stretches the learner’s mind” and that “the musical experience is the most powerful when people create for themselves” (p. 159). Reasons given for not using composition in the classroom were: too many other learning activities, a lack of technology, composition is not an appropriate activity for the type of classes taught, and that the teachers were not comfortable teaching composition. Write-in comments here indicated that there was not enough time for longer projects, that performance must come first, and that there were too many other standards to address.

Is the role of creativity in music composition really fundamental? Should it be viewed as a necessary part of every student’s education? Barrett (2003) explored the issues regarding the role of musical composition and creativity in music education. She proposed that music educators see composition as a meaning-making process that is basic to the intellectual, social, and emotional life of children. She pointed out that creative experiences for children are quite different than the experiences of adults. Why should we teach composition in the schools? What is the role of composition in the teaching and learning process? Barrett identified common reasons given for providing creative musical experiences in the school curriculum:

1. The desire of progressive educationists to provide creative experiences for all students.
2. Introducing contemporary materials and techniques of composition to children is important.
3. A composition experience underpins the development of musical understanding.
4. We must teach composition in order to develop the next generation of composers (Barret, 2003, p. 5).

While each of the above ideas has merit, Barrett proposed an additional and very critical conception for teaching composition in our schools, stating:

The process of composing is a *meaning-making* enterprise. It is a culturally mediated form of meaning-making and is most effectively described as a dialogue between the child as musician and composer, the emerging musical work, the culture that has produced the composer and the emerging work (these may be products of different cultures), and the immediate setting in which the transaction takes place (most often in the classroom). If education, and by extension music education, is the development of children's capacity to construct their worlds in meaningful ways, then a view of composition as a form of meaning-making seems a worthy enterprise (p. 6).

Providing opportunities for students to better understand their own world or culture is a primary goal of all education and allowing children to participate in the meaning-making experience of composition provides an understanding of music not possible through purely performance-oriented activities. Mursell (1948), in his seminal work *Education for Musical Growth*, identified music composition as a type of musical initiative, which promotes musical insight. Mursell explains, "Musical composition, from its humblest to its highest levels, is an act in which feeling is transmitted into a pattern of tone and rhythm. Thus it is an act in which all

phases of musical responsiveness are evoked” (p. 169). The manipulation of the medium of music through composition promotes creativity and helps to fully develop all aspects of musicianship, yet this part of the curriculum is often neglected.

To implement all nine National Standards in the classroom and achieve the goals and objectives outlined by those standards would call for fundamental changes in the way music is traditionally taught in our schools today. Lack of time is often given as a reason for not implementing the standards (Kennedy, 2002; Strand, 2006), but there is also apprehension regarding ways to address comprehensive musicianship including composition in the classroom. Teachers may be uncomfortable with the act of teaching creative composition activities because of their own lack of exposure to teaching techniques in this area. Four-year colleges and universities tend to emphasize performance and most do not offer teacher training in music composition (Hickey, 1997; National Association for Music Education, 2002; Paynter, 1982; Stephens, 2003).

While some research studies have explored creativity through the composition activities of young children (Bangs, 1992; Hickey, 1995; Smith, 2004), fewer have investigated creativity through composition in high school musicians. Sternberg (2006) states, “Creativity is often obvious in young children, but it may be harder to find in older children and adults because their creative potential has been suppressed by a society that encourages intellectual conformity” (p. 93). In the high school setting, performance frequently has the strongest focus, and is the traditional method of teaching music. Teachers who might be interested in providing creative activities for their students may not know how to organize their instruction and the introduction of composition activities to a large ensemble can create logistical problems. Giving up valuable rehearsal time is an issue, and even after teachers provide opportunities for composition

instruction in the performance classroom, assessing the creative product can create additional difficulties. Starko (2005) states, “Efforts to enhance creativity in children seem doomed to failure unless we can recognize creativity when it occurs” (p. 420). Key to recognizing creativity in our children is the capability to promote and assess it—in the creative person, process, or product. This study examined the attitudes of two high school music teachers and their students as they participated in the study of music composition in two very different classroom settings—one specialized situation where composition was accepted as a normal part of the music education process and one typical high school band classroom where ensemble performance was the focus and composition was included in the curriculum. The possibilities of recognizing and promoting creativity in high school music students, as well as methods for assessing their creative products were investigated.

## CHAPTER 2: REVIEW OF RELATED LITERATURE

### Introduction

Teachers are encouraged to teach creatively, to enhance creativity in the classroom, and nurture creativity in the student. The word creativity is actually derived from the Latin *creatus* and *créare*, which means “to make or produce” or “to grow.” Many published methods for teaching creatively and encouraging creativity in the classroom have been designed without any research background or investigation of validity (Sternberg & Lubart, 1999). In the search for a common definition of creativity, one will find multiple examples. Current dictionary definitions for “create” include to bring into existence, to produce something imaginative, and to make or bring into existence something new. Most researchers agree there are two necessary criteria in order for a product to be creative: (1) uniqueness or originality and (2) adaptive, useful, or appropriate in a domain (Pirto, 2004; Russ, 1993).

The study of creativity has been approached through multiple dimensions. Sternberg and Lubart (1999) identified seven different parameters through which creativity has been studied. First, creativity has been associated with the mystical or the divine. The idea that creativity can occur as “divine intervention” or with inspiration from a “muse” possibly has created a barrier to empirical research. The second approach is the pragmatic approach. Those taking this approach are concerned with developing and understanding creativity, but not testing the soundness of the ideas. These practical approaches lack a basis in psychological theory. The third parameter, the psychodynamic approach, is based on the theory that creativity arises from conscious reality and unconscious drives; thus, the personalities of eminent creators are studied to analyze creative behavior. Guilford (1950) challenged this type of approach as limiting to research. He felt that creativity should be studied in all individuals not just the eminent. This leads to Sternberg and

Lubart's fourth parameter, a psychometric approach to creativity research. This approach uses divergent thinking assessment in pencil and paper test format to identify creativity. Tests such as the Torrance Tests of Creative Thinking (Torrance, TTCT, 1990) are still widely used as psychometric measures of creativity. The fifth paradigm is the cognitive approach to creativity study. Understanding the processes underlying creative thought guide this approach. Studies of human subjects with stimulated-recall (Smith, 2004) as well as computer models (Cope, 2005) have been used to study the creative thought process. The sixth approach is that of the social-personality and focuses on the influences of personality variables, motivational variables, and the socio-cultural environment on creativity. Sternberg and Lubart's final approach presents perhaps the best understanding of creativity through confluence, which hypothesizes that "multiple components must converge for creativity to occur" (Sternberg & Lubart, 1999, p.10). Examination of these paradigms reveals that creativity can be associated with a person, the creative process used by that person, and the creative product or idea that is produced.

This study investigated the creativity of high school musicians—how to identify creativity when it occurs, student and teacher attitude towards composition, possibilities of creativity promotion in the classroom, and how to provide effective assessment of student creative products. The review of literature will present an overview of the history of general creativity through person, process, psychometric testing of creativity, and creative product assessment through the confluence approach to provide background for the research studies in musical creativity. The final section presents a discussion of the philosophical views of musical creativity, existing measures of musical creativity, salient research into creativity in music through composition, and the assessment of the musical product, which is of great concern to

music educators interested in developing creativity in their students and evaluating their creative compositions.

### **The Creative Person**

One of the first to investigate creativity and genius was Francis Galton (1869, reprinted in its original form in 1925). His theory that genius is hereditary was researched through biographical, ancestral, and family data gathered about eminent statesmen, commanders, literary men, scientists, poets, musicians, and painters in Great Britain. Galton defines genius as high ability or inborn mental power of facility, which could be found in certain people and in nations, suggesting a superiority of race. Galton examined data using a frequency of error process indicating a somewhat statistical analysis. He claimed to be “the first to treat the subject in a statistical manner, to arrive at numerical results, and to introduce the ‘law of deviation from average’ into discussions on heredity” (Galton, 1925, p. vi). This study of *Hereditary Genius* became a model for future studies of intellect and creativity through the study of eminence such as Terman’s (1925) *Genetic Studies of Genius* and Goertzel, Goertzel, & Goertzel’s (1978) *Three Hundred Eminent Personalities*.

Ghiselin (1952) studied the creative person through the personal writings of 38 eminent creators such as Mozart, van Gogh, and D. H. Lawrence. He believed that gaining insight into the creative processes of successful creators lends insight to one’s own personal path to creativity. Ghiselin summarized consistent themes. Creation begins with a vague yearning or some hint of a problem with future resolution. Within each creator there is a restlessness, which urges him to find a new way and resist ordinary solutions. “The faithful formalist has no chance of creating anything” (p. 19). While not empirical in nature, this study attempted to link the creative person to the creative process.

## **The Creative Process**

In his seminal work on the psychology of the human thought, Wallas (1926) identified four stages of control during the creative thought process. The first is *preparation*, the stage during which the problem is investigated in all directions. The second is *incubation*, the period while the idea develops, without conscious thought about the problem. This period is followed by the period of *illumination* or the appearance of an important idea. Finally, there is a period of *verification* where the idea is tested and reduced to its final form. The four stages may overlap each other as different problems are explored. These stages of the thought process can also be applied to finding solutions to given problems in the act of creativity. Wallas explained that the preparation stage includes the entire process of intellectual education including but not limited to subject specific studies. Incubation should be a period of relative relaxation and work of subconscious thought. Illumination is the appearance of the new and creative idea in a sudden flash, which cannot be deliberately generated. Wallas described illumination as “the culmination of a successful train of subconscious association” (p. 94). Verification closely resembles the first stage as the new idea is tested and re-tested. Many researchers in music who study the process of creativity have used the Wallas model of creative thought as a structural base for theories of the creative musical process (Burnard & Younker, 2002; Webster, 1987).

## **Psychometric Assessment of Creativity**

Guilford (1968) believed that all individuals possess creative ability on some level; so creative acts can be expected in all people. He developed a Structure of Intellect (SI) model, which categorized the components of intellect. The three main faces of intellect are content, product, and operation. Operation is further divided into five main areas: cognitive abilities, memory abilities, divergent thinking abilities, convergent production abilities, and evaluative



abilities. Guilford's work in creativity developed from his work in divergent thinking (variety of responses required, rather than one correct answer) abilities. Factors of creativity are not accessible through an IQ assessment, so Guilford identified factors, which describe the domain of creativity. These four factors (fluency, flexibility, originality, and elaboration) have been the basis for much psychometric research and testing since their development.

Based on the factors of divergent thinking identified by Guilford, Torrance developed his Torrance Tests for Creative Thinking (TTCT) (Torrance, 1990). The tests are widely used by educators and researchers in the assessment of creativity and are often the standard against which other creativity tests are measured (Starko, 2005). Two forms, a verbal form and a figural form are available for use. The tests contain open-ended tasks that measure the divergent thinking factors of fluency, flexibility, originality, and in the figural form, elaboration.

Many other types of creativity assessment exist in addition to the TTCT. "The most salient characteristic of creativity measurements is their diversity" (Hocevar & Bachelor, 1989, p. 53). Hocevar and Bachelor organized creativity measurements into a meaningful taxonomy. One hundred examples of creativity measurements were classified into the following eight categories:

1. Tests of Divergent Thinking – This type of test uses questions that require subjects to provide as many different answers to a question as possible, rather than a single correct answer, as required by most assessments. This type of measurement is the most widely used approach to studying creativity.
2. Attitude and Interest Inventories – Creativity is identified by the study of a person's interests and attitudes. Questions are asked that illustrate personality characteristics and interests that are thought to be creative.

3. Personality Inventories – Personality inventories characterize certain personality factors as creative. Adjectives that identify a creative personality are: clever, individualistic, insightful, original, self-confident, and unconventional.
4. Biographical Inventories – Items in this type of inventory represent the occurrence of life events such as hobbies, childhood activities, and experiences rather than personality characteristics.
5. Ratings by Teachers, Peers, and Supervisors – Teacher ratings of creativity are commonly used for creativity assessment. One such measure asks teachers to identify creative thinkers in the class. Creativity was defined as fluency, flexibility, inventiveness, originality, and elaboration.
6. Judgment of Products – This assessment identifies creative people through the evaluation of their creative products. While this type of assessment is common in many areas, subjective judgments are usually made and the product may limit what we truly know about the creative person.
7. Eminence – Studying creativity in eminent people can reveal much about their characteristics. However, it is arguable that this is a limited segment of the population and may not be the same as studying creativity in typical individuals.
8. Self-Reported Creative Achievements and Activities – This measurement, often designed as a checklist of creative accomplishments, is scored by counting the number of activities checked.

The authors determined that peer nominations, supervisor ratings, and teacher nominations are often ineffective because the evaluators are unable to discriminate creativity from other characteristics. The more often used divergent thinking, biographical characteristics, attitudes and interests, and personality characteristics are really “correlates of real-life creative

behavior, and they should not be taken as direct measures of creativity” (p.70). Hocevar and Bachelor suggest that the study of eminence, analysis of creative products, and inventory of creative activities and accomplishments provide the closest relationship to creativity as it is recognized in society. With a multitude of creativity assessments available, it is clear that the study of creativity occurs in many dimensions and its assessment is a challenging prospect.

### **Confluence Approaches to the Study of Creativity**

Like Ghiselin, Howard Gardner (1993) worked to better understand the facets of creation through the study of seven highly creative individuals. Gardner’s focus was developmental in nature with an examination of each subject individually with regards to cognitive issues, personality, and social-psychological factors. His resulting definition of creativity is: “The creative individual is a person who regularly solves problems, fashions products, or defines new questions in a domain in a way that is initially considered novel but that becomes accepted in a particular setting” (p. 35). He includes in his assessment study of the domain of each individual in its symbols and creative practices, and a study of the field, which consists of mentors, rivals, and followers. This flowing together of multiple creative dimensions builds a more complete understanding of the concept.

Csikszentmihalyi (1996) also supports a confluence approach to the study of creativity. Csikszentmihalyi believes that examination of only creative people or the creative process alone is limiting, stating, “Creativity results from the interaction of a system composed of three elements: a culture that contains symbolic rules, a person who brings novelty into the symbolic domain, and a field of experts who recognize and validate the invention” (p. 6). Csikszentmihalyi sees true creativity existing in an eminent form (Big “C” creativity), but agrees that small “c” creativity, found in children and everyday life should be encouraged. His

definition states, “Creativity is any act, idea, or product that changes an existing domain, or that transforms an existing domain into a new one” (p. 28).

Amabile (1996) developed a social psychology of creativity. She noticed that descriptions of the creative process by eminent individuals often included social-psychological factors as an influence on the creativity of exceptional individuals. The aim of Amabile’s social psychology of creativity was to identify the confluence of social and environmental factors, personal abilities and characteristics that can positively influence creative performance. She studied the influence of intrinsic versus extrinsic motivation and competition on the creative process. Her framework for creativity contains: skills relevant in a particular domain, skills relevant to creative thinking, and motivation for the task. She developed a consensual definition of creativity, which consists of an operational definition of creativity with an underlying conceptual definition on which to understand the creative process. The definitions are as follows:

#### Operational Definition

A product or response is creative to the extent that appropriate observers independently agree that it is creative. Appropriate observers are those familiar with the domain in which the product was created or the response articulated. Thus, creativity can be regarded as the quality of products or responses judged to be creative by appropriate observers, and it can also be regarded as the process by which something so judged is produced (p. 33).

#### Conceptual Definition

A product or response will be judged as creative to the extent that (a) it is both a novel and appropriate, useful, correct or valuable response to the task at hand, and (b) the task is heuristic rather than algorithmic (p. 35).

Using these definitions, Amabile developed her consensual assessment technique (CAT), which allows evaluation of creativity by rating the creative product.

### **Creativity in Music, Philosophical Views**

Few would argue that the domain of music offers great opportunity for creativity in many dimensions such as improvisation, composition, and performance. In his praxial philosophy of music education David Elliott (1995) states that concepts of music should be understood in relation to the meanings and values that exist in actual music making (performing, composing, improvising, and conducting) and that all forms of music making encourage multidimensional thinking which is unique to music. Elliott defines creativity as “a particular kind of making or doing that results in tangible products or achievements that people deem valuable, useful or exceptional in some regard” (p.216). He does not consider young children naturally creative, but rather spontaneous and original. Key to Elliott’s praxial view is the belief that there is no value in promoting creativity in music without developing musicianship.

Reimer (2003) differs in his philosophy, arguing that anyone who is “being creative, is at that time, creative” (p. 107). He believes that creativity exists on a continuum from that of the very young to eminent creators. Like Elliott, Reimer understands creativity in music as role specific, and requires education specific to that role. “Composers think and do creatively by imagining possibilities of sounds coming into being and by capturing them in some way (notation, computer memory, their own memory) so they can be worked on and ‘made something of’ . . . A composer creates through *exploration and discovery* of new musical possibilities” (p. 123). Critical to Reimer’s philosophy is his belief that education in creativity in all musical roles should be the responsibility of all music educators.

## Measures of Musical Creativity

Vaughan (1971) was one of the first to investigate how *musical* creativity might be described and measured. She examined the relationship between musical creativity and general creativity and their relationship to musical intelligence, which was measured using the Bentley Measures of Musical Ability (1966). First, Vaughan surveyed creative authorities and analyzed the survey results to create a model of musical creativity. Vaughan was pleased with the mixture of cognitive and affective attributes and stated that the most important implications to be drawn from the creativity experts is “that with respect to the education of the young, we see to it that children are provided with plenty of experiences and data to store away, plenty of opportunity to exercise their retrieval and combinatorial skills in many different media, and a climate which is not only accepting but challenging” (p. 60). Using this model, she constructed a test to measure musical creativity and piloted it with a group of forty-seven fourth grade students. Activities included a warm up to provide the student time to become comfortable, activities in rhythm independence and rhythmic improvisation, melodic and rhythmic response activities, improvisation over a two-tone ostinato, and free invention. Vaughan’s measure evaluated musical creativity in the students using three main factors: fluency, rhythmic security, and ideation. The scores based on these factors were correlated with the 1969 edition of the Torrance Tests of Creative Thinking (TTCT) factors of fluency, flexibility, originality, and elaboration. Significant correlations were found between the TTCT factor of originality and all three dimensions of the Vaughan measure. The Bentley (Measures of Musical Ability) scores were correlated with all creativity factors (both TTCT and musical) and a significant relationship found between musical intelligence and all creativity factors with the exception of the Torrance fluency factor. A factor analysis revealed that while the correlations with the Bentley test appear

to be significant, it might actually have measured different concepts than either of the creativity tests and further research is needed. Vaughan recommended that further tests might be lengthened in order to introduce less conventional activities, through the use of more divergent stimuli. It was also noted that judges were not always in agreement as to what each factor was measuring, therefore clarification for the judges would be necessary.

After study of the Vaughan measure, Webster (1977) continued the process of empirically investigating creativity through its relationship to other variables. Motivated by the need to evaluate creativity in high school aged musicians with musically based criteria, Webster developed his factor of intellect approach to creative thinking in music. He designed assessments for creative thinking in three separate modes of musical ability including composition, performance through improvisation, and analysis. These musical modes were assessed using factors of creative thinking ability: fluency, flexibility, elaboration, and originality, which were consistent with the literature of Guilford and Torrance. The study examined the relationships between Webster's factors of creative thinking in music and selected measures of musical ability, general creative ability, and general intelligence. Results of the data gathered from the three modes of creative thinking in music were correlated with both Figural and Verbal forms of the Torrance Tests of Creative Thinking, four subtests (melody recognition, pitch recognition, instrument recognition, and audio-visual) of Colwell's Music Achievement Tests (Colwell, 1970), and the Tonal Imagery section of Gordon's (1965 edition) Music Aptitude Profile. Additional correlations were made with general intelligence, age, gender, grade-level, performance medium (instrumental, vocal, or both), and years of piano study. Results of the study found that music achievement was the variable that most strongly predicted creative potential. The TTCT, figural creativity factor, was significantly related to improvisation and

analysis. Age, grade level and performance medium, had no significant relationship to creative thinking in music. Recommendations for replication or improvement in these measures included suggestions such as shortening the tests and starting with easier tasks that become increasingly more challenging.

Gorder (1980) also constructed a test of musical creativity, which assessed divergent production abilities in music. The Measures of Musical Divergent Production (MMDP) was based on the Guilford and Torrance models and sought to identify the concepts of fluency, flexibility, originality, elaboration, and quality (quality added, not originally used by Guilford or Torrance) in school instrumental music students. Creative musical abilities were given definitions that parallel those of Webster's research:

- a. Musical fluency – the production of musical ideas or phrases (content) from given music information;
- b. Musical flexibility – the production of musical ideas or phrases that are scored for shifts in content character;
- c. Musical elaboration – the production of musical ideas or phrases that are scored for the detail or complexity of content characteristics employed;
- d. Musical originality – the production of musical ideas or phrases that are scored for the use of musical content characteristics rarely used by the population to which the subject belongs.
- e. Musical quality – the production of musical ideas or phrases that appeal to musicians' musical sensitivity (Gorder, 1980, p. 35).

Gorder added the construct of musical quality to gain a measure of global musical ability that contrasted the previously identified divergent production abilities.



The MMDP Test consisted of four musical stimuli for which the student was to improvise as many phrases as possible based on the information given. The students were tape-recorded and allowed three minutes for each stimulus. The students were to sing, whistle, or use a familiar instrument to provide their responses. A categories listing of music content was created to assist in the analysis of responses. Nine main content areas were considered: melodic, rhythmic, meter/pulse, tempo, style, dynamic, timbral, expressive device, and form. Student responses were scored for fluency, flexibility, elaboration, originality, and musical appeal or quality. The phrases were scored based on the musical content characteristics, and the technical quality of performance was not considered. Content validity was determined by interviewing expert musicians such as composers, jazz performers, and organists who examined the test. Forty high school and 40 junior high band members were used to investigate criterion-related validity. MMDP scores were correlated with ratings of musical creativity completed by the band director. Factors of fluency, flexibility, originality, and quality were significantly related to teacher ratings of musical creativity. Reliability of the measure was moderately high and determined using a test-retest format. The MMDP scores were also correlated with music aptitude, music achievement, age, music training and experience indicating no relationship in these areas.

Webster continued his creativity research by developing his Measures of Creative Thinking in Music (Webster; 1994), which is the most well known measure of creative musical potential (Hickey, 2002). It is designed for use with children ages 6 to 10. Instruments used are: a round sponge ball that is used to play tone clusters on the piano, a microphone suspended in front of the student and attached to an amplifier and speaker, and five temple blocks that produce different pitches when struck by a mallet. The test contains a warm up followed by 10 scored tasks in three main sections: exploration, application, and synthesis. The tasks begin simply and

become increasingly more complex. The exploration section allows students to become familiar with the instruments and introduces the concepts of high/low, loud/soft, and fast/slow, which are used throughout the test. Application tasks focus on creation of music with the instruments, one at a time, followed by synthesis tasks, encouraging the students to use all instruments in a relatively unstructured composition setting that involves a beginning, middle, and an end. Students are videotaped for scoring. The videotapes are evaluated using objective and subjective scoring techniques based on factors from the work of Torrance: musical extensiveness, musical flexibility, musical originality, and musical syntax. Inter-scorer reliability in the dimensions of musical originality and musical syntax ranges from .53 to .78. Internal reliability ranges from .45 to .80, and test-retest reliability ranges from .56 to .79. A group of music educators, psychologists, and composers met to review the test and make suggestions for improvement, which provided content validity for the measure. Webster (1987) expressed concern that the measure requires a great amount of time to both administer and score but encouraged continued research in the area of creativity assessment to “reveal part of the musical mind that has been all but ignored” (p. 271).

### **Sequence of Musical Development through Composition**

Early research in music composition sought understanding of the sequence of composition as children progress in compositional skill. Doig (1941, 1942a, 1942b) was one of the first to report on group composition methods. She investigated the developmental changes in the compositions of children ages 6 – 16. Under different conditions of structure, the children sang or whistled their compositions, while the teacher notated the melodies. The children composed individually, and then made group decisions as to which melody was the best, and offered suggestions for improvement. Doig suggests that younger children use more stepwise

motions, and the older group used a wider range involving leaps. The older children focused more on harmonic concepts and both groups seemed to have an understanding of and were sensitive to changes in form. Although not published until 1978, Morehead and Pond completed a longitudinal, qualitative study into children's creative music exploration at the Pillsbury Foundation School in Santa Barbara, California, from 1937 to 1948. Researchers observed children in their classes, while taking field notes for analysis. The children composed in an unstructured setting, freely choosing timbres from a variety of instruments. Similar to the Doig study, results indicated that children began composing with step-wise intervals and moved to larger ones. Children also progressed from major to minor tonalities in their compositions.

Three decades later, Swanwick and Tillman (1986) studied the sequence of musical development in children by observing the developmental composition processes in children of different ages. Composition was defined as taking place whenever "there is freedom to choose the ordering of music, without notational or other forms of detailed performance instruction" (p. 311). The 745 compositional products of children (3 – 11) were recorded over a period of four years. Swanwick and Tillman developed a spiral model of musical development from analysis of the compositions. The lowest stage (ages 0 – 4) was identified as "mastery," which involves a sensory response to sound materials. Different timbres and the volume of the sounds fascinate students aged three to four. The children move towards mastery through exploration of sound in their compositions. The next stage (ages 4 – 9) was "imitation," which is described as "personal expression moving toward the vernacular," (p. 320). Rather than imitation as a reproduction of existing ideas, this stage contains acts of personal musical expression that begin to appear and gradually move to an understanding of musical ideas that are socially shared (vernacular). The next stage (ages 10 – 15) is identified as "imaginative play." This involves musical speculation,

which is based on the vernacular, but also includes musical expression and the development of new musical ideas. New ideas are generated based on the musical knowledge that is present. The final stage (ages 15 and up) is “meta-cognition,” involving self-awareness, a strong sense of value, and movement towards musical development, expands the field of music—allowing true creativity to occur. As each new musical idiom is explored, there is a return to study of the vernacular or common language of music. Swanwick and Tillman felt that this spiral model contained implications for both curriculum planning and the individual development of musicians.

Kratus (1989) investigated the amount of time spent in using exploration (creating sounds unlike any ever heard before), development (creating music similar to but not the same as music created earlier), repetition (creating music that sounds the same as music created earlier), and silence during the compositional process of children, ages 7, 9, and 11 ( $N = 60$ ). Kratus defined a musical compositional product as “a unique sequence of pitches and durations that its composer can replicate” (p. 8). Students were asked to make up a song, on the white keys of the keyboard that no one had ever heard before. Compositions were recorded and evaluated in five-second intervals for the processes used. Results indicated that seven year-olds used more exploration than the nine and eleven year-olds and less repetition than the 11 year-old students. This study indicated that as students grew, they used the process of development and repetition more frequently. Kratus suggested that improvisation might be a better creative activity for seven-year-old students.

### **Student Motivation in the Compositional Process**

Another dimension for research into creativity has been to examine how a student is motivated to compose. Motivators can include different mediums as stimuli for creativity and

specific forms of motivation (intrinsic versus extrinsic) for the creative act. Bangs (1992) examined the effect of intrinsic and extrinsic motivation on the creative products of third grade ( $N = 37$ ) students. This study provided Domain Readiness Training based on Amabile's (1983) design for 10 days in 30-minute class periods. The Domain Relevant Skills included basic musical concepts such as study of texture, high and low sounds, timbre (wood vs. metal), staccato and legato, dynamics (soft and loud), tempo (fast and slow), and silence vs. sound. The concepts of form, organization, variety, and complexity were also introduced. This training also included creativity relevant skills. Amabile defines these skills as those that determine "the extent to which the product or response will surpass previous products or responses in the domain" (Amabile, 1983, p. 72).

The students were randomly divided into three groups and received one of three motivation treatments: extrinsic motivation, intrinsic motivation, and control (no motivational strategy). These treatments consisted of video instruction, a questionnaire, and group discussion in the applicable motivation category. The researcher attempted to manipulate the motivation orientation of the students using videos: one that featured students discussing extrinsic reasons for working in school or one that featured students discussing intrinsic reasons for working in school. Following treatment, a second composition was completed, recorded, and assessed using the researcher designed *Dimensions of Judgment* tool—based on the Amabile Consensual Assessment Technique (CAT). Intrinsically motivated students scored significantly higher than both the extrinsically motivated group and the control group. Eisenberg and Thompson (2003) also investigated the role of intrinsic and extrinsic motivation and the process of evaluation in improvised music of college non-music majors with similar results. These authors also used Amabile's CAT as the evaluative tool. Similar to Bang's results, they found that musicians who

were intrinsically motivated created improvisations that ranked higher on a creativity scale than those that were extrinsically motivated.

The effect of stimulus as a motivational tool has also been investigated. Fehrenbach (1996) compared the effect of emphasis on feeling in second grade composition. Two intact second grade classes received similar instruction in composition ( $N = 56$ ), which included viewing cartoon segments as motivation for improvisation activities. The pretest involved improvising music that the students perceived as a soundtrack to the cartoon video. Following the pretest, the treatment group received instruction designed to increase student awareness of and sensitivity to feelings expressed in music. In addition, the students received instruction on the properties of music. Instruction for the control group omitted any reference to feeling and expression and just emphasized the properties of music. Both groups used cartoon segments to inspire their compositions. In the posttest both groups showed significant improvement in the mean posttest scores compared to the pretest scores. Compositions were evaluated using Amabile's CAT and a high degree of inter-judge reliability was determined ( $r = .74$ ). Analyses indicated that emphasis on musical feeling and expression had a significant effect on the perceived expressive content of the pieces. In addition, both groups improved in the quality and structure of the compositions. Ferenbach noted that instruction in expression improved the expressive nature of the compositions and did not detract from their musical quality.

Smith (2004) examined the effects of different types of stimuli to motivate the compositional process and products of fourth grade recorder students. She investigated the effect of teacher-designed task structure on the compositional product, the relationships between these products and academic achievement, musical audiation ability, music literacy and experience, the effect of the task structure on the compositional processes of the students, and the relationships

between the task structures and student preference and perceived difficulty of the task. The process of stimulated recall (recalling one's internal thought process while watching a video-tape of one's actions) was used to gather data on student processes, and the Q-sort technique (sorting and ranking procedure) was used to evaluate compositions. The initial task for all students was an unstructured composition, followed by compositions using (a) a short, four-note motive, (b) a poem as the compositional stimulus, (c) strong feeling or mood as stimulus, and (d) a complete phrase. The final task was to write a second unstructured composition. Results indicated that the quality of composition was influenced by the task structure used. The poem task led to the pieces of highest quality, and the unstructured first and last, were often the lowest ranked. There were no strong correlations with academic ability, music aptitude, and music experience. The amount of time spent on different tasks was not related to the quality of the compositions. Three styles of composing processes were identified: auditory, visual, and kinesthetic. The students using the kinesthetic style, tended to produce pieces with the highest rankings.

Like Smith, Toups-Traxler (2008) also compared the level of creativity in the compositions of third grade students based on the stimulus used. The use of a visual and a verbal stimulus for composition were compared. All students received composition instruction in their regular music class. The students composed in small collaborative groups using one of the two stimuli as inspiration. Compositions were videotaped and evaluated by elementary music teachers using Amabile's CAT. Toups-Traxler created an assessment form using 13 dimensions of judgment, which were divided into three main categories of creativity, technical goodness, and aesthetic appeal. Reliability scores on the assessment by the three judges indicated moderate to high reliability (.48 - .83). No significant differences between stimuli were noted between the verbal and visual stimuli on any of the assessed dimensions.

## Investigations into the Creative Musical Process

Understanding the cognitive processes of composition has been of great interest to researchers seeking methods of effective composition instruction in the classroom. Based on current research at the time of publication, Webster (1987) presented a conceptual model of creative thinking in music with the goal of stimulating more focused research in the area. The foundation for his model was that musical divergent production skills are measureable and important to the creative thinking process. These skills are not related to measures of musical aptitude but are related to musical achievement. Webster's model began with *Product Intention*, which is the creative goal of composition, performance/improvisation, or analysis. In music, intention represents both the process of creative thinking as well as the product. The second part of Webster's model was *Enabling Skills*. These are the skills that allow the creative thinking process to occur such as musical aptitudes (individual skills in tonal and rhythmic imagery, musical syntax, extensiveness, flexibility and originality), conceptual understanding (cognitive facts that make up the substance of musical understanding), craftsmanship (ability to apply factual knowledge to a complex creative task), and aesthetic sensitivity (ability to shape sounds in order to gain a "feelingful" response). The final part of the model consisted of *Enabling Conditions* such as motivation, subconscious imagery, environment, and personality. Webster proposed that the process, which connects these skills and conditions to the creative product, is movement through four stages of creative thought originated by Wallas (1926): preparation, incubation, illumination, and verification. The student uses both a divergent and convergent thought process. In fact, Webster believes there is much switching back and forth between concepts as the process proceeds. He also explains that in music, the illumination phase may not



come in one “aha!” moment, but in small stages that point the way to the final version of the creative product.

Hickey (1995) explored the cognitive processes of creativity more directly by examining the compositional thought process and its relationship to the quality of music compositions in twenty-one fourth and fifth grade children. Student composers were evaluated on the creativity of their compositions using the Amabile CAT. Hickey compared the characteristics of creative musical thinking processes and craftsmanship in the top one-third of these students to the bottom one-third. She also looked at the relationship between MCTM-II (Webster, 1994), teacher creativity ratings, and musical experience compared to the composition ratings and creative musical thinking processes. Creative thinking process variables were defined as time, measures, keystrokes, play/silence, range, timbres, parameter changes, and start time. Data were collected by examining MIDI data recorded while students worked with a researcher-designed computer program called Music Mania. Three stages of composition were analyzed: introduction, exploration, and composition. Analysis revealed that the high performing composition group used significantly more playing time, had more parameter changes, used a wider range of notes, and created more measures than did the low composition group. Trends indicated the top one-third indicated more flexible and fluent behaviors—characteristics often associated with creative people. Teacher’s ratings of student creativity indicated no significant relationship to creativity, however there was a significant relationship between craftsmanship and teacher creativity ratings. There were no significant relationships between composition ratings and level of performance experience, or MCTM-II scores.

A different approach to study of the compositional process was the investigation of connections between student compositions and their musical and life experiences (Stauffer,

2002). Using a longitudinal case study approach with six students from grades four through six, Stauffer's data included student and parent interviews, observation of students at work, and the collection of compositions written by each student. Compositions occurred during "computer music class" and a "non-intervention protocol" was used. The children received no instruction and were not given specific tasks. The intent was to see what the students could do on their own, with minimal adult involvement. The analysis identified "rich and varied connections between the students' contexts and their music" (p. 301). Compositions contained elements of the students' ensemble experience, film and television music, and social cues related to events in their home and school life. Stauffer's research indicated that students used experiences from their musical and personal lives to create compositions that were personally meaningful.

### **Investigations into the Creativity of High School Musicians**

Research in the area of creativity with high school musicians tends to focus on the creative processes of these students. Salaman (1988) investigated the conflict between freedom and constraints in the composition process of high school musicians. Absolute freedom in composition is difficult to assess and strict constraints may eliminate creativity. A compromise must be reached. Salaman states, "Musical thinking lies at the heart of composing" (p.6). The premise of this study was that students must be encouraged to handle sounds musically and be provided with appropriate musical models. Salaman worked with two 15-year-old music students who had never composed before. His tasks for the students were to compose a melody with rhythmic accompaniment, to compose variations based on fragments of a given melody, to set a given song to harmonic accompaniment, and to compose a song to words that were supplied. Before each task, a model for compositional stimulus and musical devices that could be used were provided and discussed. Salaman found that when the students had a clear understanding of

the musical devices to use, creativity was not inhibited and concluded that “genuinely musical thinking in no way stifles invention” (p.19).

In order to gain information regarding student learning style and how to structure learning for high school music composition students, Brinkman (1995) studied the effects of problem-finding and creativity style on the creative product. High school students were categorized as to their creativity style in the process of composition. The Kirton Adaptation–Innovation Inventory was used to identify students as adaptive (likes to do things better), or innovative (likes to do things differently) in problem solving situations. The two groups were given compositional “problems” that were either open (no constraints on the problem or solution) or closed (constraints on the problem, but not on the solution). The students used synthesizers to complete the task. Expert judges using the Amabile CAT (three dimensions of originality, craftsmanship, and aesthetic value) rated compositions. Creativity was not used as a dimension here because of the Kirton Adaptation-Inventory use. There were no significant differences in problem type or creativity style and no significant interaction. Analyses did indicate that students had a preference for the open problem, and no preference for which problem was presented first.

Burnard and Younker (2002) sought to identify any regular composition strategies that might exist in students of multiple ages, nationalities, and compositional backgrounds. Using the Wallas (1926) model of stages in the creative process and examination of student interviews, recorded composition session talks, student written reports, and examination of their musical products, researchers identified common compositional pathways. The models “represent a set of implicit generalisations about how composing occurred and the role creative thinking played as students composed” (Burnard & Younker, p. 251). The identified models were 1) linear, which

indicated movement through preparation, incubation, illumination, and verification in order with minimal conception of possible outcomes; 2) recursive, which indicated more movement across and within the four stages, particularly incubation and illumination; and 3) regulated, which indicated a strong conception of the composition as a whole and more divergent thinking in the preparation and exploration phases. Other general findings were that formal instruction did not appear to affect the students' divergent thinking ability and that students' choices of compositional pathways were completely individual—"firmly rooted in their musical biographies" (p. 257).

Kennedy (2002) investigated the compositional processes of four high school composers. Using a qualitative design, Kennedy collected interviews, observation data, and documents to analyze the composition processes. Students were first asked to set a short poem for voice and acoustic instruments. The second task was open-ended, asking participants to "engage in the composition of a work" (p. 98) using an electronic format. Results indicated that issues involving time (time use, thinking time, and favorite working times) seemed to be the most important factors. All students tended to procrastinate, and mentioned that thinking time was important as a strategy in composition. Common elements identified were the importance of listening and the use of improvisation to generate ideas. Listening included all music listening done from their personal music collections at home. All students said that listening provided inspiration and a stimulus for composition. Some completed a refining process (with more musical skill) while other compositions sounded very improvised. Students spent more time on the electronic piece than the acoustic poem setting, which was hand notated. The representative model for the compositional process of these students began with 1) listening as a preparation, 2) thinking, 3) listening as stimulation and inspiration, 4) experimentation or development (for some), and 5)

finishing off. The most critical aspects that might be applied to the classroom were the focus on listening and the time required for thinking, experimentation, and development. This commitment to time spent can be a challenge for those interested in composition in the classroom (Strand, 2006).

### **Assessment of the Creative Musical Product**

With the call for accountability in the schools, teachers are often required to evaluate class projects and activities. Assessment of student products may also provide information as to the creative ability of individual students. Several studies have addressed this issue.

Kratus (1990) calls for a set of clearly articulated goals and objectives to effectively focus creative learning and assessment based on the creative person, process, and product. Addressing the creative person Kratus states, “Students will approach musical activities (improvisation, composition, performance) in a creative manner” (p. 34). Suggested guides for instruction were to encourage students to be more imaginative, more open to solving musical problems, and more musically independent. Concerning the creative process Kratus sets the goal: “Students will express themselves musically through improvisation, composition and creative performance” (p. 34). He addressed the product factor by stating, “Students will apply an understanding of musical elements (e.g. rhythm, melody, timbre, dynamics) and musical principles (e.g. repetition, development, contrast) to the production of created music” (p. 34). Kratus emphasized that instructional objectives should be framed in the context of person, process, or product. He suggested that there is no correct model for creativity assessment in music, yet assessment must happen. Evaluation should focus on the behaviors described above, not unrelated criteria.

Like Kratus, Webster and Hickey (1995) believed that relevant assessment of creative musical achievement includes more than using a performance checklist. They acknowledged that

there is new emphasis on evaluating the creative effort through portfolios, though this type of assessment often requires a teacher to make difficult decisions. While objective analyses of content of compositions are useful, Webster and Hickey believe that they are not enough. Objective evaluation may not show evidence of student high-level thinking. The authors compared the reliability of open-ended scales to more closed, criterion-defined scales when assessing children's musical compositions or creativity. The study divided selected rating scales, previously used in earlier studies on composition assessment, into those that approach assessment style as explicit (lengthy description of what is to be rated, possibly criteria) or implicit (purposefully vague, allowing evaluator to decide meaning for themselves) and those that approach assessment content through specific (music characteristics) or global issues. Webster and Hickey explain that it is a common misperception that clearly defined, explicit rating scales have greater reliability. Results of this study indicated that the implicit style, like the Amabile CAT, is actually quite reliable especially in the global area of evaluation. Webster and Hickey found that explicit and specific guidelines do not properly evaluate the construct of creativity and/or composition and that open-ended implicit/global evaluations may offer a more successful method of evaluation for teachers and researchers.

Amabile (1996) conducted more than 20 studies using her CAT in the evaluation of visual arts and literature with subjects of all ages. She has “demonstrated that the consensual assessment technique is robust yielding reliable subjective assessments of creativity even when the procedure is varied to some extent” (p. 79). Amabile's CAT must be based on the products of creativity, rather than the process or person, in order for empirical research to have merit. She believes that the product is creative if independent evaluators agree that it is creative based on their own personal definitions of creativity. There are three requirements of any creative task to

be evaluated with Amabile's technique. First, the "task must lead to some product or clearly observable response" (Amabile, p. 41). Next, the task should be open-ended enough to allow flexibility and novelty in response. Finally, examinees must have a similar level of accomplishment. There are five important requirements for evaluators using the CAT (Amabile, 1996, p. 41-43):

1. The judges must have similar experience in the domain of assessment.
2. The judges must make decisions or comparisons independently of one another.
3. The judges should make assessments on dimensions such as technical achievement and aesthetic appeal in addition to the decision on creativity.
4. The judges must rate the creative products relative to one another—rather than against an absolute standard.
5. Each judge should view the creative products in a different and random order.

Many empirical studies in music that assess music composition products have successfully adapted Amabile's CAT (Bangs, 1992; Brinkman, 1995; Eisenberg & Thompson, 2003; Ferenbach, 1996; Hickey, 1995, 2001; Troups-Traxler, 2008). Bangs, Ferenbach, and Troups-Traxler used this technique for evaluation of compositions produced using different types of stimuli. Brinkman and Hickey used the CAT for evaluation of compositions assessed while exploring the process of musical and creative thought used by students in their compositions. These studies were covered in more depth in earlier sections of this review of literature.

Other uses of the CAT in musical settings can be seen in the research of Priest (2001), who investigated the relationship of student musical creativity assessment to the ability of the student to function creatively as a composer. Fifty-four undergraduate students in a music fundamentals course for elementary education majors composed pieces for recorder as part of the

requirements for their class. Independent judges used a Consensual Musical Creativity Assessment (CMCA) based on Amabile's CAT. The judges used a continuous scale from one to five and rated the compositions on the dimensions of creativity, melodic interest, rhythmic interest, and personal preference. From these results the students were placed in high, middle, and low creativity groups. The students then evaluated compositions from students who had taken the course previously. The students' verbal comments regarding the compositions were categorized and indicated statistically significant differences in the type of comments made. Students in the high-creativity group identified temporal factors more frequently than those in the lower two groups. Students in the middle and low-creativity groups used metaphors more often than students in the high-creativity groups. Priest's data suggests that students who composed pieces that were rated as highly creative were more aware of temporal factors than the less creative student composers.

In a later study, Priest (2006) investigated the assessment reliability of three groups of judges under three different conditions. Elementary education student recorder compositions were again used as the product for assessment and the CMCA, based on Amabile's CAT was used in the assessment of creativity and craftsmanship. The judging groups examined were instrumental music teachers, elementary music specialists, and non-music majors (elementary education majors). Three conditions of assessment were examined: audio only, score only, and audio and score together. The non-music majors (elementary education majors) used the audio only condition. The music teachers (instrumental and elementary specialists) were randomly assigned to all three conditions. Reliability in the non-music major group (audio only) was .89. Music teacher assessment revealed that the audio-only condition provided the highest level of reliability (instrumental,  $r = .96$ ; elementary specialist,  $r = .93$ ) and the score only condition was



significantly lower (instrumental,  $r = .85$ ; elementary specialist,  $r = .85$ ). The audio and score condition results were instrumental,  $r = .91$  and elementary specialist,  $r = .89$ . These results indicate that judges may be more consistent in creativity assessment when using audio recordings rather than scores.

Hickey (2001) also studied the inter-judge reliability of the CAT on children's music compositions and sought to determine what type of judging group would provide the most reliable assessment of creativity in the compositions of fourth and fifth grade children. The compositions of 12 students were used for assessment. Judging groups consisted of music teachers, composers, theorists, seventh-grade children, and second-grade children. The music teacher group was further subdivided into instrumental teachers, mixed teachers, and general/choral teachers. The composers, theorists, and teachers completed their evaluation using three dimensions: creativity, craftsmanship, and aesthetic appeal. Forms used a seven-point Likert-type scale. The students evaluated using only two dimensions, creativity and liking. All judges were asked to use their own definition of creativity for analysis. An intraclass correlation, adjusted for three judges in each group, indicated that the composers had the lowest level of interjudge reliability for creativity (.04) and the general/choral teachers had the highest reliability (.81). Other groups were: music theorists, .73; all music teachers, .64; instrumental teachers, .65; mixed teachers, .53, seventh-grade children, .61; and second-grade children, .50. Although the expert composers were the least effective evaluators, Hickey determined that the CAT is a "moderately reliable technique for measuring the creativity of children's compositions" (p. 240) and explained that the CAT tends to be the most reliable when used by the most knowledgeable group of judges within that context. The teachers of the fourth and fifth grade children were the most effective evaluators of the compositions written by those children.

## **Purpose and Research Questions**

Previous research in musical creativity has focused on psychometric testing to identify and measure the creativity of children (Gorder, 1980; Vaughan, 1971; Webster, 1977, 1994), student motivation and thoughts in the creative process (Bangs, 1992; Ferenbach, 1997; Smith, 2004; Touns-Traxler, 2008), and the assessment of the creative musical product (Hickey, 2001; Kratus, 1990; and Webster & Hickey, 1995) with the predominant area of study involving elementary aged children. Existing research in the area of high school musicians has examined composition strategies and (Burnard & Younker, 2002; Salaman, 1988) compositional processes (Brinkman, 1995; Kennedy, 2002). In spite of the research into creativity development through music composition, most high school music programs continue to focus on instrumental and vocal performance (Hickey, 1997). To better understand the reasons for this phenomenon, Strand (2006) identified both positive and negative feelings that teachers had about using composition in the classroom and discovered that few used composition in their classrooms often. Therefore, the purpose of this study was to examine the attitudes and perceptions of high school musicians and their teachers regarding the addition of composition in one traditional performance classroom and one non-traditional classroom comprehensive musicianship classroom. In addition, an investigation of creativity assessment in these students and their compositions was conducted.

Specific research questions were:

- 1) How do teachers perceive the benefits and challenges of developing creativity in high school musicians through composition instruction, and do these perceptions change after participation in an instructional program of creativity and music composition in their classrooms?

- 2) What are student attitudes regarding creativity through music composition, and how do these attitudes change throughout the instructional process involving domain-relevant composition skills and creativity relevant skills?
- 3) How do different types of musical evaluators, specifically classroom music teachers involved in teaching music composition, high school students involved in the actual composition process, and music composition “experts” compare in their assessment of the creativity of high school musicians as demonstrated through their compositions?
- 4) Is there a relationship between a student’s musical background (music aptitude, previous composition experience, years of experience on a primary instrument) and creativity in music composition as evaluated using Amabile’s Consensual Assessment Technique?

It is clear that creativity has been investigated through many dimensions, and a definition of creativity can be altered depending on the area of study. Scientists, actors, visual artists, and musicians all hope to use and develop creativity in their respective domains. In the present study the following are my definitions for creativity and composition, and were used to provide a background for this research.

A.) Creativity – the development of a product that is new or original to the creator, and appropriate in the domain in which the creator exists. Beethoven has certainly been identified as a creative composer, but student compositions may also be identified as creative within their domain or level of expertise.

B.) Composition – the manipulation of the medium of music in order to create a novel musical idea or work that is recorded in some fashion (notated, audio-recording, etc.) so that it can be shared again.

Creativity is an important area to nurture in children, and can be found in many areas of the music discipline. Improvisation offers multiple opportunities for creativity and there are creative components of music performance as well. Even the area of music theory and analysis can be viewed as an opportunity to be musically creative. The present study focuses on the area of creativity through music composition.

This mixed method study, situated in two differing music programs, investigated the possibilities of recognizing, promoting, and assessing creative ability in high school students through class instruction and experience in music composition. Qualitative case study techniques were used to examine student and teacher attitudes before, during, and after the compositional process. Techniques included interviews, reflective journals (teachers and students), attitude surveys (students), and field observation of the teachers and students involved in a music composition instructional program in the classroom. A quantitative component generated data to analyze attitude survey information, investigate the effect of Amabile's Consensual Assessment Technique as an evaluative tool for creativity in high school music composition, and examine its application by different judging groups. In addition, student background characteristics such as years of playing experience, private lesson experience, and musical aptitude were examined as possible predictors of creative ability.

## CHAPTER 3: METHOD

### **Setting and Participants**

This mixed method investigation examined creativity through composition with a focus on two very different musical settings: a general music class for students identified as gifted musicians and a typical symphonic band program. The schools selected for study were two public high schools located in southern Louisiana.

The first was a high school with a Talented Arts Program. In addition to regular education services in the arts, a Talented Arts Program of instruction is offered through elective classes in music, visual art, and theatre. The Louisiana Department of Education (2007b) seeks to screen, identify, and provide services for children who possess unique talent in the visual or performing arts. State regulations call for special education services to be provided that emphasize acceleration, enrichment, multi-disciplinary content, higher level thinking skills, abstract thinking skills, and a higher degree of complexity than regular classroom curriculum. These music classes are small and offer a curriculum in which composition instruction is accepted as a clear curricular objective.

In the Talented Music Program, students may be identified as talented in any performance area: vocal, instrumental, or improvisatory for non-readers. The instrumental, vocal, and improvisation auditions are scored based on categories of musicianship appropriate for each area. The categories are worth five points each. The students complete an interview to determine the level of student interest. Students in kindergarten through sixth grade must also complete testing using the state's Music Evaluation Instrument. The evaluation instrument involves aural discrimination tasks in melody and rhythm. Students in grades 7 – 12 are not required to complete the Music Evaluation Instrument; however, for these students a sight-reading or pitch-

matching task is included and scored within the audition process categories. Trained evaluators hired by the state conduct all examinations. Students must meet all of the screening criteria at the minimum levels (LA DOE, 2007a). Table 1 lists the scoring criteria for the Talented Music identification process.

Table 1

Minimum criteria for measuring unique talent in music

Evaluation Criteria	Grades K – 3	Grades 4 – 6	Grades 7 - 12
Instrumental	27 of 30	27 of 30	27 of 30
Vocal	33 of 35	33 of 35	47 of 50
Improvisation	23 of 25	23 of 25	23 of 25
Interview	18 of 20	18 of 20	18 of 20
Music Evaluation Instrument	35 of 40	30 of 35	not applicable

Louisiana Department of Education (2007a)

The curricular model for the Talented Music Program is based on the Louisiana Arts Content Standards (2008) including creative expression, aesthetic perception, historical and cultural perspective, and critical analysis through goals that are accelerated and differentiated to meet the needs of each student. Course content focuses on the areas of music theory, music history, music composition, and music performance. Classes are usually small (approximately four to eight students in each class) and contain students of mixed ages, musical abilities, and performance area. The Talented Music Program is designed to enhance not replace private music instruction the students may receive outside of the classroom. Band and choir students in talented music classes are encouraged to continue participation in their school band or chorus program, while instruction provided in the talented music classroom adds to and accelerates students' regular music instruction.

Procedurally, the Talented Music Program classes at this high school met daily with 24 students enrolled in the program. The talented music teacher participated as the instructor for six composition instruction units for this group of students during three months of the spring semester. During this period there was no additional composition instruction provided. Each class period was approximately 50 minutes.

The second setting was a high school with a large and active band program, with no Talented Music Program in the school. The band program holds auditions during the fall semester and places students according to performance ability on their instruments in three different band classes. The symphonic band ( $n = 74$ ) participated in this study and was considered the “second” band at the school. This symphonic band met daily for a period of approximately 90 minutes with traditional instruction revolving around instrumental performance skills and ensemble development. The students rehearsed band music in a large ensemble setting. While two band directors were employed by the high school, only one director was responsible for planning and rehearsing the symphonic band class and he participated as the instructor for the composition instruction activities for this study. This band director devoted 45 minutes (one half of a day’s rehearsal time) to complete six composition instruction units for his students over the same period of three months.

The goal was to provide music composition instruction on a weekly basis, but in both settings, due to ensemble performances and other school conflicts, instruction did not always happen weekly. The talented music students received some previous instruction in music composition during the fall semester as part of their regular classroom instruction, while the band students had little, if any. Using these two music programs provided contrasting cases for the study with one very traditional approach to music instruction through instrumental

performance and one specialized program, which approached the study of music in a more comprehensive manner. These two settings also provided students of differing levels of experience in music composition as well as musical accomplishment.

### **Preliminary Data Gathering Measures**

As required by federal regulations, research involving human participants requires approval from an Institutional Review Board (IRB) and was obtained from the Louisiana State University IRB for Human Subject Studies (see Appendix A). In addition, approval from the principals of the two participating schools, letters of parent permission, and consent for participation from each student was completed before the study began. Letters of permission can be viewed in Appendix B. All students ( $N = 98$ ) received the composition instruction and participated in the creativity assessment procedures, however only the assessment data of those students with parent and personal consent were included in the study.

The study began with a series of measures designed to gather information regarding music aptitude, student attitude regarding creativity and music composition, and student background. The following section provides an explanation of each data gathering measure and rationale for its use.

### **Advanced Measures of Music Audiation (AMMA)**

Musical aptitude of the students in both settings was measured using the Advanced Measures of Music Audiation (AMMA) (Gordon, 1989), essentially a music aptitude test that measures audiation ability. Gordon defines audiation as hearing and comprehending music when the sound is not physically present and feels that audiation is a necessary skill in the process of creating music. The AMMA was designed primarily for use with college and university students as well as high school students. It is recommended as a music aptitude test that may serve as part of the criteria used for entrance to a university or college school of music.



The test is approximately 20 minutes long and yields tonal, rhythm, and composite scores. The examinee hears a short musical statement and answer, and must decide whether the answer is the same or different than the statement. If the examples differ, the examinee must decide whether the difference was a tonal change or a rhythmic change. In the AMMA, the tonal and rhythmic aspects of each question are not isolated. Gordon believes that listening for both tonal and rhythmic changes encourages the student to audiate rather than just memorize. The AMMA was standardized using a total of 5,335 students. Of this number, 3,206 were graduate and undergraduate music majors, 2,130 were graduate and undergraduate non-music majors and 872 were high school students in grades 9 – 12. A reliability coefficient of .84 (split halves reliability) is provided for the high school students.

The Musical Aptitude Profile (MAP) (Gordon, 1995) is another often-used aptitude test in research. It is a much longer test (115 minutes application time) than the AMMA with sections in tonal imagery (melody and harmony), rhythm imagery (tempo and meter), and musical sensitivity to phrasing, balance, and style. Gordon states that the MAP is designed for students in grades 4 – 12 and it is particularly suited for identifying individual strengths and weaknesses in the tested students. The decision to use the AMMA for this study, rather than the MAP was based on time constraints and the musical abilities of the students who participated in this study.

#### Student Data Form

In order to gather data regarding each student's musical background, the participants completed a student data form, which provided the following information: what instrument they played or part they sang, how many years they had studied that instrument, whether they had studied privately and for how long, and whether they had any previous composition experience. This form can be viewed in Appendix C.

## **Music Composition Instruction Program**

The investigator met with the teachers prior to the beginning of the instruction program to explain the goals and objectives of each activity and to answer any questions that the teachers had. The teachers of each program presented the investigator-designed program of music composition instruction and creativity-relevant instruction during six classes of a nine-week period. The original plan was for instruction to occur weekly, but due to school holidays, and changes in scheduling to accommodate performance and rehearsal needs, instruction covered the nine-week period.

Week one included a 50-minute composition introduction and listening period to expose students to different styles of music composition. Weeks two through five each involved a short period (15 to 20 minutes) of instruction followed by 25 minutes of time for the students to complete a written composition assignment in class based on the current week's instruction. Instruction was based on *Composing and arranging: Standard four benchmarks* (National Association for Music Education, 2002), Achievement Standard 4a (9-12), which reads, "Students compose music in several distinct styles, demonstrating creativity in using the elements of music for expressive effect" (p. 74). Instruction covered the following domain relevant concepts: musical texture, timbre, style, motive manipulation, form, and creativity. Week six involved "creativity relevant instruction" (Amabile, 1996), which included instruction on concepts of inspiration, perceiving creatively, suspending judgment, and abandoning ordinary solutions. Lesson plans contained objectives and suggested strategies; however, teachers were encouraged to use them as guidelines and to include their own ideas in order to accomplish the objectives. All composition lesson plan outlines can be viewed in detail in Appendix D.

The classroom teachers examined each weekly assignment and returned the assignment to the students but did not formally assess the composition assignments. Pencils and manuscript paper for all activities were provided for the students by the researcher. All students in both programs were competent music readers due to previous instruction so standard notation was used to complete assignments and the final project. Students were provided with composer journals following each instructional period to write down feelings about the composition process and keep track of composition ideas that they thought of outside of class.

## **The Quantitative Component**

### Composition Attitude Survey

Boyle and Radocy (1987) defined attitude as “a predisposition toward mental or psychomotor activity with respect to a social or psychological object, event, or phenomenon” (p. 197). In order to assess student attitude towards composition before receiving composition instruction, each student in the band program and the Talented Music Program completed a 16-item attitude survey regarding his or her feelings about music composition. The survey was a Likert style survey with the following five choices: strongly agree, agree, undecided, disagree, and strongly disagree. Boyle and Radocy state that five categories are adequate for most scales. The attitude survey was based on a jazz improvisation attitude scale developed by Wehr-Flowers (2006), which was modeled after the Fennema-Sherman Mathematics Attitude Scales (1976). The constructs of confidence and anxiety in jazz improvisation were adapted to fit composition attitudes for nine of the questions. Seven of the questions were investigator-developed questions.

Categories were assigned point values of five to one for strongly agree to strongly disagree. Nine questions viewed composition in a favorable manner and seven questions were reversal items (viewing composition unfavorably) and were scored from one to five. Points for

the 16 items were summed to provide a total composition attitude score. A section for student comments followed each question. The attitude survey can be viewed in Figure 1.

After participation in the six-week period of instruction and experience in the process of music composition, a post-instruction Likert style attitude survey, identical to the first survey, was administered and analyzed in an attempt to determine whether experience and instruction in music composition effectively changed the students' attitudes towards composition.

### Composition Assessment

One week after the final composition instruction activity, each student was asked to write a short composition for evaluation, consisting of one or two voices and 12 - 24 measures. Each student had 50 minutes to compose the final work, and was able to use any of their composition materials created in class during the six-week instruction period, or ideas notated in their composer journals. Students had choice of time signature and instrument timbres they wished to use in their composition. All compositions were hand notated by the student on an assessment form provided (see Appendix E) in their choice of key. Compositions were transcribed by the investigator, using *Finale®*, to create an audio file and printed score for each piece. At the end of the study, each student received a copy of the manuscript, and an audio recording of their final composition project to document their achievement. No changes were made to the original student compositions.

Ten compositions from the group of high school students with composition experience and 20 compositions from the students with no previous experience in composition ( $N = 30$ ) were purposefully selected for the assessment component of this study. This smaller number of compositions was a more manageable number for evaluation by three different types of judging groups. Compositions from the Talented Music Program were selected from students who had

## Creativity Attitude Survey

**Directions:**

Please circle the appropriate response to each question below. Your name is required for research tracking, but all responses will be kept confidential. Your honest response is requested and will be most valuable to me for planning future lessons and understanding your feelings about music and music composition. A comment section following each question will allow you to provide a more detailed response about your feelings, if you wish. Your classroom teacher will see the overall results of the survey, but will not see your individual responses.

**1. I enjoy expressing my thoughts and feelings through music performance.**

Strongly Agree      Agree      Undecided      Disagree      Strongly Disagree

Comments:

**2. I feel secure in attempting to compose music.**

Strongly Agree      Agree      Undecided      Disagree      Strongly Disagree

Comments:

**3. I am sure that I can write a good composition.**

Strongly Agree      Agree      Undecided      Disagree      Strongly Disagree

Comments:

**4. I think I could learn to compose.**

Strongly Agree      Agree      Undecided      Disagree      Strongly Disagree

Comments:

**5. I am no good at composing music.**

Strongly Agree      Agree      Undecided      Disagree      Strongly Disagree

Comments:

**6. I am not the type to do well in music composition.**

Strongly Agree      Agree      Undecided      Disagree      Strongly Disagree

Comments:

**7. I can handle most musical tasks, but music composition would be a problem.**

Strongly Agree      Agree      Undecided      Disagree      Strongly Disagree

Comments:

Figure 1. Pre and posttest attitude survey

(Fig. 1 cont'd)

**8. Composing music does not scare me.**

Strongly Agree      Agree      Undecided      Disagree      Strongly Disagree

Comments:

**9. I would like to learn how to compose music.**

Strongly Agree      Agree      Undecided      Disagree      Strongly Disagree

Comments:

**10. It would embarrass me to have people hear the music I compose.**

Strongly Agree      Agree      Undecided      Disagree      Strongly Disagree

Comments:

**11. I admire anyone who can compose music**

Strongly Agree      Agree      Undecided      Disagree      Strongly Disagree

Comments:

**12. I would like for people to hear the music I compose.**

Strongly Agree      Agree      Undecided      Disagree      Strongly Disagree

Comments:

**13. Composing is a waste of time.**

Strongly Agree      Agree      Undecided      Disagree      Strongly Disagree

Comments:

**14. Composition makes me feel uneasy and confused.**

Strongly Agree      Agree      Undecided      Disagree      Strongly Disagree

Comments:

**15. It is impossible to express personal feelings through music.**

Strongly Agree      Agree      Undecided      Disagree      Strongly Disagree

Comments:

**16. Composition is a way to creatively express my feelings through music.**

Strongly Agree      Agree      Undecided      Disagree      Strongly Disagree

Comments:

two or more years of experience with composition in their classroom. Compositions in the band program were randomly selected because no students in this program had previous composition training in any setting. Creswell (2007) states that in qualitative research the investigator selects sites and individuals for study because they can “purposefully inform an understanding of the research problem and central phenomenon in the study” (p. 125). Selecting compositions from students with and without composition experience provided a deeper understanding of high school music composition and its assessment. Compositions from students who were absent for one of the class instruction periods were not included in the selection process.

Assessment of the 30 compositions representing the final composition project was conducted using an evaluation tool created by the researcher, but based on the CAT developed by Amabile (1996). This assessment form was adapted as a three-dimension assessment in music composition based on its previous use in research (Bangs, 1993; Brinkman, 1994; Hickey, 1995). The reliability of three different types of judging groups was examined: the two teachers of the students in each classroom and one additional teacher with composition instruction experience, 15% of the student composers from each class setting, and three composition “experts.” “Experts” was defined as music composers—college faculty or graduate students in composition who have had at least one of their original compositions published or performed in a formal setting. While all students in both settings completed the final evaluation of 30 compositions, only 15% were randomly selected and used as part of the composer reliability portion of this study.

Judges ranked compositions on the following three musical dimensions: creativity, craftsmanship, and aesthetic appeal. To aid in the assessment of 30 compositions, the judges

were asked to sort the compositions as “pleasing” and “less pleasing” on the first hearing. On the second hearing, the evaluation according to three dimensions (creativity, craftsmanship, aesthetic appeal) was conducted. The *Composition Rating Form* format can be viewed in Figure 2. A complete rating form can be viewed in Appendix F.

**Composition Rating Form**

Directions:  
 You will hear the compositions two times. On the first hearing, you should sort them by listing the composition numbers under the “Pleasing” category, or “Less Pleasing” category. This will help you to determine higher and lower scores. After listening to each student’s composition the second time, please rate it according to the 3 dimensions listed below (Low = 1, High = 5). Put an ‘X’ on the line that best represents your assessment. For each of the dimensions, use your own subjective definition of the quality to be evaluated.

**First hearing:** list the composition numbers in the proper category

PLEASING LESS PLEASING

**Second Hearing:**

Composition Number

Low = 1              High = 5

1. Creativity: The degree to which the composition is creative.

1 — — — — 2 — — — — 3 — — — — 4 — — — — 5

2. Craftsmanship: The degree to which the composition contains craftsmanship qualities.

1 — — — — 2 — — — — 3 — — — — 4 — — — — 5

3. Aesthetic Appeal: The degree to which the composition is aesthetically pleasing.

1 — — — — 2 — — — — 3 — — — — 4 — — — — 5

Figure 2. Composition rating form



For each composition, judges placed an ‘X’ on the line that best represented their ranking in the appropriate dimension. Each composition received a score ranging from 10 to 50 in each dimension from each judge. Compositions were evaluated using an audio recording only based on Priest’s (2006) research indicating that evaluation using an audio recording only was more reliable than viewing the musical score alone, or audio recording plus score. Each judging group used the same judging form. For the student judging groups, a brief discussion was held to make sure they understood the different evaluation categories. Creativity had been discussed in the final week of composition instruction and students spent time discussing their own definitions of creativity. Craftsmanship was defined as how well the music was “put together” or how well it demonstrated musical skill. Aesthetic value was described as how “pleasing” the composition was and whether they would “like to hear it again.” Composer and teacher judging groups evaluated based on their own personal definitions of each dimension. Scores in each dimension (creativity, craftsmanship, and aesthetic appeal) were used to determine the relationship between a student’s musical background (music aptitude, previous composition experience, instrument played, private lesson experience) and creativity in music composition.

### **The Qualitative Component**

In order to explore the phenomenon of music composition in the high school music classroom, the investigator completed a multiple-case study through a phenomenological lens of two programs—the Talented Music Program and the Symphonic Band class. Stake (2006) explains that the importance of a multi-case study lies in investigating the phenomenon of interest in different environments. These two programs offered very different approaches to teaching music. The band program offered traditional performance instruction and the Talented Music Program offered a multi-dimensional approach to the study of music, offering instruction

in music history, music theory, and composition in addition to performance skills. Yin (2003) asserts that the most important application of case study research is to “*explain* the presumed causal links in real-life interventions that are too complex for the survey or experimental strategies” (p. 15). Yin further explains that two cases can serve as “multiple experiments,” (p. 53) providing either similar or contrasting outcomes.

Included in the design of the study were embedded cases within the larger program unit. Specific subunits within each case were identified to create possibilities of greater insight into each case and allow a more extensive analysis (Yin, 2003). The embedded cases for this study included the teacher of each program as well as three purposefully selected students from each school. These three students were selected in cooperation with each classroom teacher and provided a variety of musical ability, gender, and personality differences for a more in-depth study of student perceptions. The chief reason for selection of differing students was the opportunity to learn more about the concept of composition in the classroom and how it affects both teachers and different students. Figure 3 illustrates this multiple-case study design.

The investigator served as an observer and was present in every class for data collection through observation for the entirety of composition instruction, but was not involved in the instructional process. Because the role of the investigator in the interview process involved interaction and conversation with teachers and students, and discussion with teachers regarding the lesson plans and activities for each week, the investigator’s role was defined as observer/participant. This role is basic to a qualitative study (Marshall & Rossman, 1995). Data were gathered using the same methods in each program and consisted of interviews (of each teacher and three selected students), field observations of class events, student composer journals, teacher journals, and the physical artifacts gathered from the composition activities.

## PHENOMENON: MUSIC COMPOSITION IN THE HIGH SCHOOL MUSIC CLASSROOM

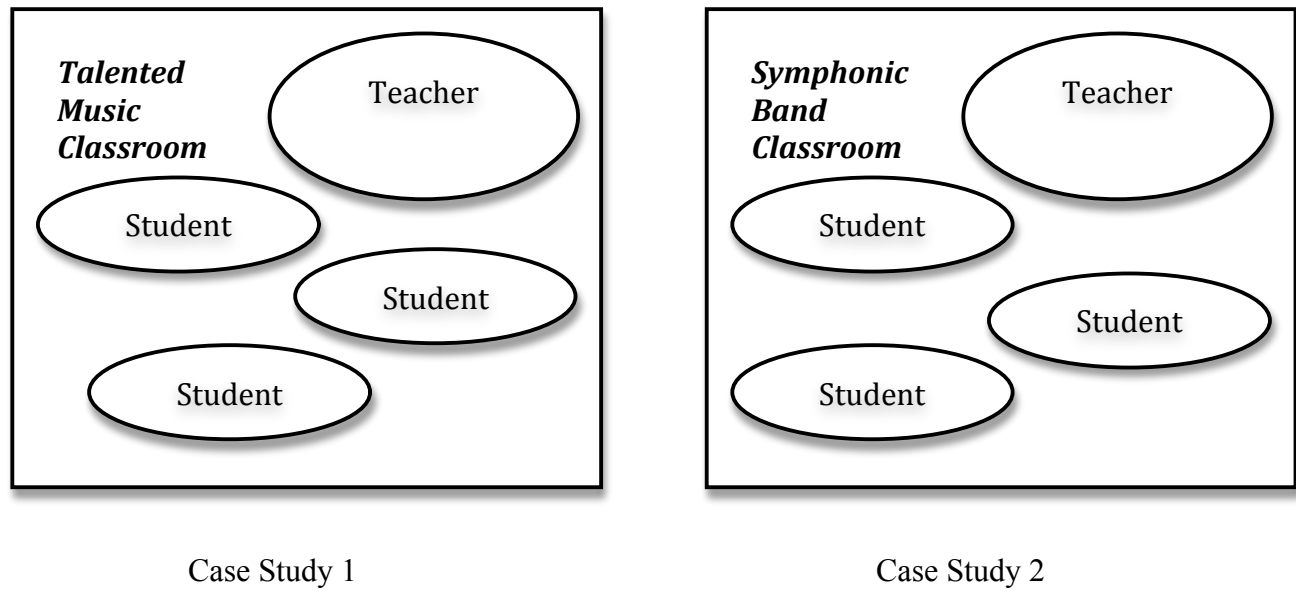


Figure 3. Multi-case study design for music composition in the classroom

In-depth, guided interviews with the teacher and three selected students in each program were completed before composition instruction began and final interviews were conducted following the composition experience. These interviews were designed as informal conversations with some “predetermined response categories” (Marshall & Rossman, p. 80). To ascertain the suitability of the initial questions and to develop initial themes, interview questions were piloted with one band director and one talented music teacher from different schools. The preliminary interviews were recorded, transcribed, and analyzed for prevalent themes. Subsequent interview questions were determined by the themes and patterns uncovered through the data analysis. Teacher and student interview questions for both interviews may be found in Appendix G. These

themes and patterns were identified and coded, and a search for confirming data or alternate hypotheses ensued.

The investigator completed field observation of all composition and creativity-relevant class instruction. The first observation was a general observation of classroom composition activities, guided by the teacher and student perceptions and activities during composition instruction. There were no pre-determined checklists or categories. As with the interview process, data were coded and analyzed following each class session. As themes and patterns begin to emerge from the data, future observations were guided by those patterns. “The value here is that the researcher is able to discover the recurring patterns of behavior and relationships” (Marshall & Rossman, p. 79).

The teachers and all students of each program were asked to complete teacher/composer journals regarding their feelings about the teaching and composing processes and the activities presented during the session. These journals were required of the teachers, but collected from the students only if willing to share his or her thoughts. The student composer journals were collected, copied for analysis and the originals were returned to the students. The composer journal format is modeled after the “Composer’s Diary” used in the Burnard and Younker (2002) composition study. Through the use of the journal, students were able to share accounts of composition progress, thoughts regarding each day’s activities, and personal feelings about the process. Space was provided to notate musical ideas that occurred outside of the classroom activities. Journal format can be viewed in Appendix H. Documents consisting of the class composition activities and the final composition projects were also collected, copied for the researcher, and then returned to the students.

In addition to quantitative analysis of positive attitude scores that were compared from pre- to posttest, student comments following each question in the attitude survey were examined for themes, which provided support for or refuted themes identified in the observation and interview process. These comments also helped to explain changes in attitude that were identified in the quantitative data. Yin (2003) described the survey as a type of interview, which can provide quantitative data as a part of the case study data.

### **Procedures**

This exploratory study of student and teacher perceptions of composition in the high school music classroom was conducted at two southern Louisiana high schools during a twelve-week period of the 2008 –2009 school year. As an observer/participant, I visited each school for all data gathering procedures during the 12 weeks in order to supervise preliminary data gathering activities, observe all composition instruction, and organize the final composition project as well as its assessment. The preliminary data gathering measures—student information sheet, pre-instruction composition attitude survey, the Advanced Measures of Music Audiation (AMMA), and preliminary interviews—were administered over the opening two-week period, before the classes received composition instruction. Final composition project, composition assessment, final interviews, and the post-instruction composition attitude survey were completed after the composition instruction was completed.

### **Qualitative Data Analysis**

All interviews, field observation notes, journal entries, and student comments from the attitude surveys were transcribed for analysis. Data were analyzed using a “cross-case analysis” (Stake, 2006). Each case was studied to find the unique themes that developed, and analyzed to

identify themes found in both cases. Emerging themes were identified and coded to identify key assertions found in the data.

Analysis followed Marshall and Rossman's (1995) five analytic procedures. The first procedure was organization of the interview and observational data. The computer program *ATLAS.ti*, (Scientific Software Development GmbH, 2008) was used to organize the large amount of descriptive data that was accumulated. This program allowed me to import transcripts as text files, code and sort important phrases into categories or themes in order to reduce the data, and allowed me to add thoughts and interpretations to the file. Second, I identified categories, patterns, or themes that emerged from the data. Third, I tested emergent hypotheses. Marshall and Rossman described this process as "evaluating the plausibility of these developing hypotheses and testing them through the data" (p. 116). This involved searching through the data to find corroborating support of each hypothesis. Fourth, I searched for alternative explanations. As theories emerged from the data I looked for alternate explanations as possibilities. Fifth, I wrote the report. Marshall and Rossman asserted that this step in the process could not be separated from the process of analyzing the data.

### Reliability and Triangulation

The validity of key assertions discovered through analysis of the emerging themes was confirmed using a process of triangulation. Stake defines triangulation as "a process of repetitious data gathering and critical review of what is being said" (Stake, p. 34). Marshall and Rossman (1995) define triangulation as "the act of bringing more than one source of data to bear on a single point" (p. 144). Each identified theme required at least three confirmations across the data (observations, interviews, survey statements, and journals). Member check interviews were

conducted with each teacher as an additional method of validating findings in the research and served as an additional source of reliability.

### **Statistical Analyses of Quantitative Data**

To aid in the analysis of student attitude toward composition, all composition attitude surveys containing students' opinions and descriptive comments regarding composition and music learning in general were scored. Positive statements regarding composition were scored higher and negative statements lower. Responses to the 16 attitude survey statements were summed to determine an overall creativity attitude score. The range of possible scores was 16 – 80. Preliminary differences between programs was investigated using Mann Whitney *U*. Pre to posttest results were analyzed using Wilcoxon Matched Pairs Signed Ranks (for larger sample sizes) to determine whether significant changes in student attitude regarding music composition occurred following the composition instruction activities. Individual attitude survey questions were also examined using Wilcoxon Matched-Pairs Signed Ranks to determine significant differences in particular questions.

The next section of analysis was to examine the reliability of the different judging groups in their assessment of the composition products. Thirty randomly selected compositions were used to compare three different judging groups: (1) expert judges, (2) teachers, with experience in composition instruction in a music classroom, and (3) students, involved in the composition instruction. Inter-judge reliability of the different judging groups was determined for each of the three dimensions of judgment using the Kendall Coefficient of Concordance *W*. Correlation analysis, using the thirty randomly selected student composition scores (creativity, craftsmanship, and aesthetic value—as evaluated by teachers with experience in teaching

composition, using the Amabile Consensual Assessment Technique) was conducted to examine the possible relationships between creativity in high school students and the following:

1. AMMA (Gordon, 1989) – Advanced Measures of Music Audiation, rhythm, tonal, and composite raw scores;
2. Number of years and description of formal composition instruction;
3. Years of experience on the primary instrument.



## CHAPTER 4: RESULTS

### **Introduction**

Primary qualitative data for analysis of teacher perception of creativity development through composition in the classroom were the pre- and post-instruction teacher interviews. Secondary sources for analysis of teacher perception were teacher journals and investigator field notes from observations made during the composition instruction. Analysis of student attitude toward composition was completed using pre- and post-instruction attitude surveys, three student pre- and post instruction interviews in each program, field notes from classroom observations, and student composition journals. All interviews were recorded and transcribed for analysis. Student and teacher journals, attitude survey comments, and field notes were also transcribed yielding over 200 pages of text for analysis of significant themes. All identified themes were validated by triangulation, requiring multiple occurrences across the data. An additional area of triangulation was the final “member-check” meeting with the two participating teachers, which provided opportunity for the teachers to confirm that the identified themes accurately represented their perceptions. Teachers were provided with transcripts of the interviews, coded data, and draft of the final report prior to the meeting. Stake (2006) defines “member check” as a vital part of the triangulation process, which allows the main interviewee to confirm and potentially revise the identified themes of analysis. Due to time constraints and the additional data provided from the attitude survey, “member check” interviews were not conducted with the interviewed students.

Quantitative data included the student data form information, Advanced Measures of Music Audiation (Gordon, 1989) percentile ranks, and teacher evaluations (creativity, craftsmanship, and aesthetic value) of the final composition projects using the Amabile

Consensual Assessment Technique. Results of the analysis are presented in the following order: Teacher Perception, Student Attitude, Composition Evaluation, and Relationship of Student Background to Creativity.

### **Teacher Perception**

In the preliminary interview, I asked the teachers to share information about their background in order to promote rapport with me. I then asked them to provide their personal definitions of creativity and music composition, to share perceptions of the challenges and benefits of teaching composition in their classrooms, and to share their beliefs about the National Standards in Music. In the final interview, I again asked for their definition of creativity and composition as well as thoughts about challenges and benefits of developing creativity in the classroom. Last, I asked what type of training would have better prepared them to teach composition. All questions can be viewed in Appendix F. Results are presented for each teacher using common central themes of analysis—performance culture, class setting, concerns about the time required, and teacher preparation.

### **High School Band Director Perception**

*Creativity is being able to generate something meaningful out of nothing. When I say nothing I don't mean that it is in a vacuum, but that you can take something ordinary...just regular tools—whether that is a musical instrument or pencil and paper—and do something special or meaningful with it* (Definition of Creativity, Band Director).

The interviews took place in the band director's office following his afternoon rehearsal. There was a guitar class meeting in the band room behind us, and students frequently knocked on the door with questions for their teacher, which he answered readily. There was an obviously

good rapport between teacher and students. The band director had approximately 10 years of experience with this program, and was very candid about his beliefs and concerns relative to implementing these experimental procedures in his band. However, by agreeing to participate in this research, he also indicated a willingness to consider new ideas regarding the musical education of his students. Four main themes were identified as challenges to developing creativity through composition in his band program: the band performance culture, demands of time, the physical class setting of a band program, and teacher preparation (see Figure 4). Following the final interview an additional theme, discoveries, was identified.

The culture of the traditional band program is very strong. This band director knew that he had built a successful, traditional band program for his students. He believed that the introduction of creativity through music composition in his classroom might interfere with the traditions of that culture. Statements such as the following support this belief: “You know the life of a band director. We kind of have some things that are set out for us to accomplish, so it is a balancing act to find ways for the students to be really creative,” and “In the band classroom it is really tough for kids to be creative. We have to struggle to find ways to let them be creative because most of the time we expect them to play it like it is on the page.” When speaking of using the National Standards in the classroom he stated, “I think historical context and all those things are important, but certainly less important than the job we have in front of us.” This director also felt that developing creativity could be a good idea, but was not being done in most performance-based groups across the country. It therefore occupied a place outside the norm.

An important aspect of the band culture and tradition is the organization of curriculum and instruction primarily around performance opportunities. This predominant focus on performance was also identified as a challenge to creativity. This director’s band program

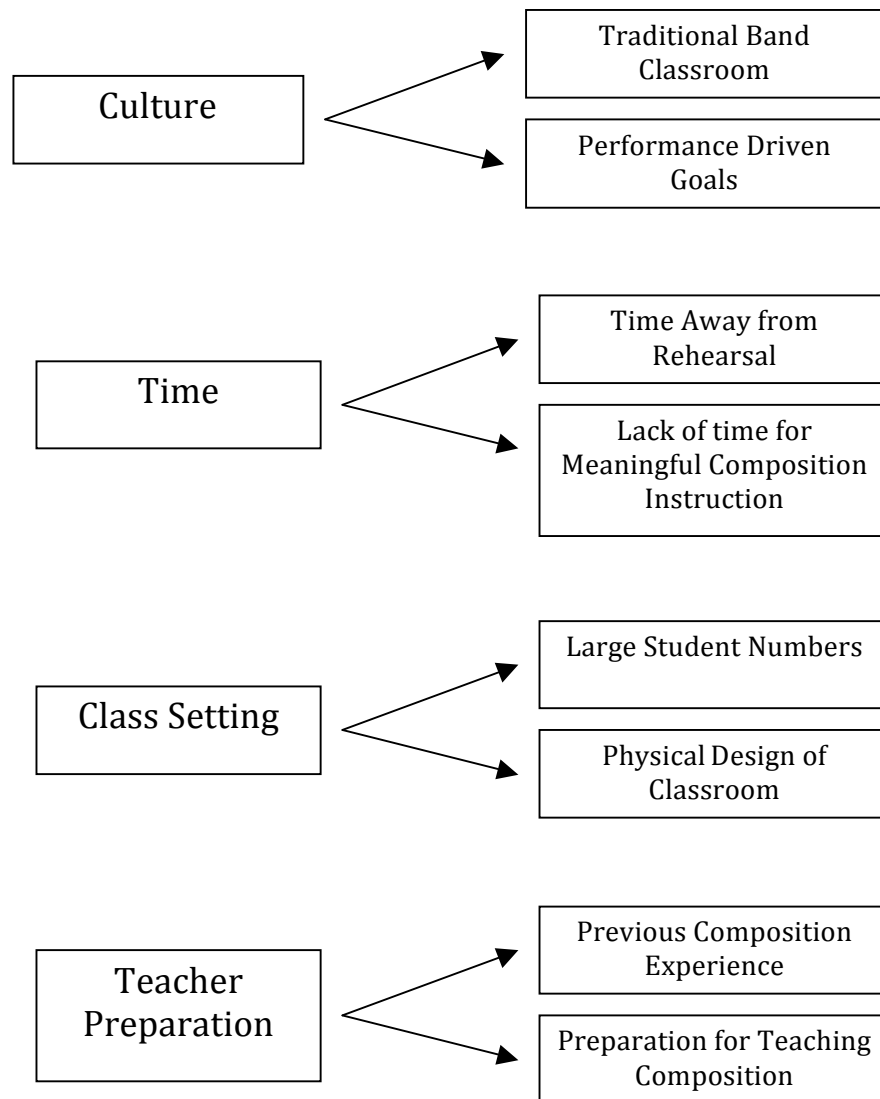


Figure 4. Challenges to creativity in the high school band classroom (pre instruction)

marches over 200 students and competes in the state marching festival in the fall and in the state large ensemble festival in the spring consistently scoring superior ratings, so a rigorous rehearsal schedule and performance of challenging repertoire is expected. A superior performance is a common goal for teachers and students in the program. When speaking about the National Standards, the band director explained, “You have to put it in perspective. What situation do you

live in? For us, reading, notating, performing alone and with others, and analyzing—those are things that we do or should be doing as a part of a performance ensemble” and “The biggest challenge would be committing to doing all those things in spite of the fact that it may lessen the accomplishment of the group’s performance.” There was a belief that to approach music through the dimension of composition might add “depth and width” to a child’s music education, but might limit opportunity to excel in a performance area. The band director felt that if he had to implement composition as a regular part of the curriculum for his performance ensembles he would have to do away with other standards “in order to meet the goals and expectations that we have in common and that are placed on us as a performance group.”

Field observations of the band students and this band director reinforced the theme of culture. Composition sessions were rescheduled twice when performance opportunities approached. There was great importance placed on adding one more rehearsal to possibly improve the group’s performance. Another area of support for performance tradition was observed in the students during composition instruction. I noticed that during every session of composition instruction the students were most engaged with the activities when they were playing their instruments. Learning about composition in a lecture format was a foreign concept to the students in a band program. As they picked up their instruments to play, the level of comfort and engagement obviously increased. I felt that while their level of engagement might have been due to the novelty of a new activity, the fact that they were playing their instruments made the activities seem more typical of their daily routine. The traditions and expectations of running a superior band program are a powerful challenge to the development of creativity through composition instruction in the classroom.

The second major challenge to creativity development through composition instruction in the band room was time. In traditional programs band directors often feel pressed for time even without trying to plan for another level of musical instruction such as composition. In addition to addressing the musical needs of a large number of students, the director planned rehearsals, managed travel, and organized fundraisers to finance projects for the program. With the performance-based culture in place, there was not time for composition as an added component. Statements supporting this belief are: “I think that if we had as much time as I would like to have, composition would be something we would do” and “Composition is something I would never have considered working in, just because the task would be overwhelming.” This director also believed that adding composition to his already busy schedule would not allow meaningful instruction in the area of music composition, stating, “My real concern is are we just jumping through hoops with these composition exercises? At the end of the six weeks of instruction, when my mountain of work is bigger and I put this aside because of other concerns and issues, will it have made an impact or will we have squandered that time?” He was concerned that the instruction be valid and meaningful for his students, and not just a cursory exposure to something new.

During instruction, I observed many references to time as a concern. This teacher held 45 minutes of rehearsal time before he began the composition instruction. There were two instances when, as the end of rehearsal approached, he made comments such as, “We are so cramped for time!” and “Are we getting anything done today?” Time was also a concern to him during the composition activities because it seemed as if 45 minutes was never enough to accomplish all that he wanted to on the composition activities.

The third challenge to composition instruction identified by this director was the class setting in a typical band classroom. The physical setting for this program was one large band room with 74 students sitting in a traditional band set up, each with instruments in hand and music stands in front of them. How would meaningful instruction occur in this setting? The level of noise in the room could be overwhelming. “In the band performance classroom you’ve got 70 kids. It is hard enough to make the band sound good. If I have to choose my battles, it is so much easier to have everybody playing and doing one thing when you have only one person in front of them, than to have 70 kids doing 70 different things at the same time.” Again there was concern that to teach composition to this number of students could not be done in a meaningful way. An additional challenge to teaching composition in the band classroom under the class setting concern was the physical band set up. The band director was concerned that some students on the outside and back of the set up would not maintain engagement with the lecture format found in some of the composition instruction. The band director stated, “I have a feeling that some of the students will not want to participate, particularly those on the periphery of the band set up.”

Field observations revealed some interesting information regarding the band setting and the large numbers of students. I noticed that the band director was correct to assume that during lecture the students on the periphery might be less engaged. I noticed this clearly during most classes. In fact, the distance each row was from the podium or front of the classroom seemed to have a strong relationship to the level of attention to the lecture. As stated previously, this ceased to be an issue the minute the students were engaged with an activity that involved composing with their instruments. During the planning of this study, I had personal concerns regarding the potential level of noise with 74 students composing on their individual instruments at the same time. The noise level was surprisingly manageable. I observed that as the students composed,

they played very softly (possibly to avoid having their creative ideas overheard by a neighbor), and then notated ideas on their manuscript paper.

The fourth challenge to creativity development through composition instruction was identified as teacher preparation. Most colleges and universities do not include creativity and music composition instruction in the music education curriculum. This band director felt that this lack of training was a challenge to meaningful instruction, saying, “I wish I had been taught about composition and had opportunities to do it. Even in college, you don’t get many opportunities. You’re not required to compose at the university level. To put teachers into the schools and expect them to have students compose while never having been taught how to do it themselves is kind of absurd.” Teachers are not prepared to teach composition in their teacher training situations and are intimidated by the process because of this lack of background (Hickey, 2002; Strand, 2006). This lack of training also was an issue in preparation for class. Delivery of instruction for the composition activities required lecture at the beginning of each session. This was far from the typical rehearsal format to which the band director was accustomed. In journal entries the band director wrote, “As prepared as I tried to be, teaching this type of material in such a large class for the first time was a bit crazy,” and “I enjoyed the lecture part simply because it was something different for me, but I would never teach my band class that way.”

When asked to describe possible benefits of developing creativity through composition in his classroom prior to participation in the composition, the band director felt that his students would acquire a greater depth of musical knowledge and that he anticipated learning something new from the process himself. He hoped that through participation in the composition activities, some of his students would discover an interest or ability in composition of which they were



previously unaware. Throughout the composition instruction program, and in the final interview, the areas of culture, time, class setting, and teacher preparation were still the main themes of analysis. As shown in Figure 5 there were, however, some changes in the band director's perceptions of these challenges to teaching composition in his band classroom. For the post-instruction discussion, themes are presented in reverse order so that the most powerful theme—band performance culture—could be discussed as a conclusion to this section

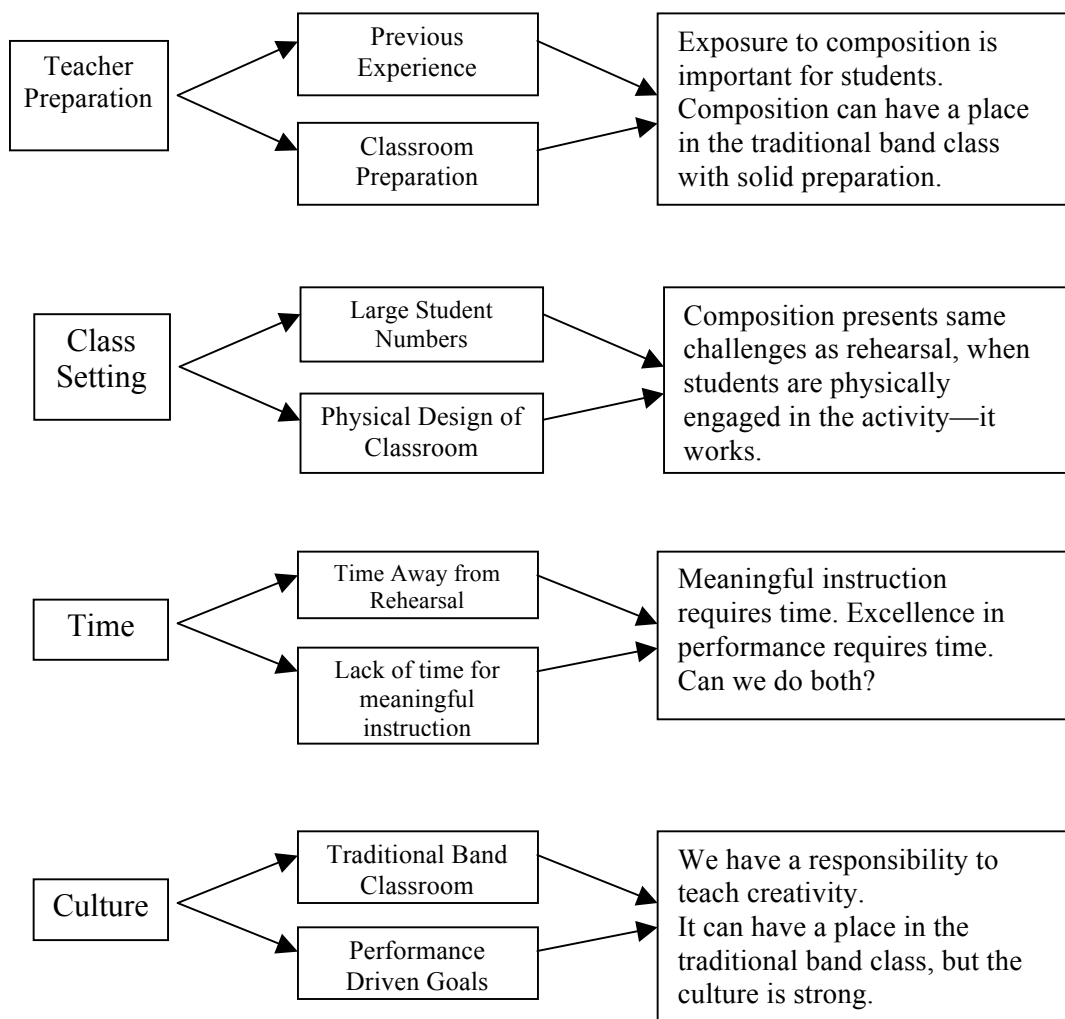


Figure 5. Challenges to creativity in the high school band classroom (post instruction)

After presenting the composition activities in his classroom, the band director felt more comfortable with his previous preparation and composition experience. He felt that his musical background—having experience with many varieties of music as a performer—helped him to work with his students as they composed using many different styles. He said, “In teaching composition on this level—kind of an introduction to composition for high school students—training was not really as important as just playing music from a lot of different styles” and “I think that in my background, being exposed to and being interested in a lot of different types of music helped me. Everything from playing in a rock band, to orchestra work, to being a band director has been the best training for me.” When addressing his preparation for teaching each of the classes, he acknowledged that preparing to teach the composition activities required a lot of time in order to be successful, saying, “As I am more prepared to deliver the material, the students obviously are much more likely to be successful.”

As with the concept of teacher preparation, class setting seemed less of a challenge after experience in teaching the composition activities. This director could relate the levels of student attentiveness directly to his experience with them in a rehearsal setting. “The students reacted accordingly with those who are normally the most attentive paying attention, and those who usually have average to low levels of attentiveness were on and off.” As many band directors know, it is harder for students to be unengaged when they are playing their instruments than when they are listening to teacher instruction. Composition instruction presented the same challenge. When presenting new material, most students were engaged, but a few could be seen exhibiting off-task behaviors such as talking softly, daydreaming, or doing homework on a stand. However, when presented with a writing activity it was difficult to find a student who was not on task. The band director noted, “When we did the writing, most of the students were engaged and

ready to work. We are performers by nature in band, so lecture is not why they are here. They are in band to do something.” This director was frustrated by his inability to work individually with each member of his band on the composition activities; however, he shared that he also felt that same frustration in working with the students in a band rehearsal setting.

Following composition instruction, the issue of time remained a strong challenge. However the focus of attention on time shifted from concern regarding time away from rehearsal to lack of time in which to teach composition in a meaningful way. The director felt that while the activities were meaningful, they were “too rushed and not covered in enough depth to be effective.” With only 45 minutes of the class devoted to composition, the students were not provided with enough time to complete activities. In many cases, students were diligently working on the assignment as the bell rang. They often asked to take work home with them so that they could complete their musical ideas. This was a surprise to the director who explained, “I think that says a lot about what the kids want out of this—as well as the directors. You might have expected some people to say ‘I didn’t want to do this’ or ‘I wish class was over.’ I even thought that I might say that . . . but really I wish we could have gotten deeper into it.” He also found greater value in teaching composition than he expected stating:

Composition is not a waste of time if they are experiencing music. They are writing, reading, and thinking about music in a different way. Rehearsing a piece of music for an extra 45 minutes per week is not going to make as much difference as doing some of this composition will.

The challenge of time remains strong and would need to be addressed both in planning meaningful rehearsals and in the area of composition instruction.

After participation in the composition instruction this band director was willing to admit that the band performance culture and the traditions of his band program could probably be adjusted to include an additional area of composition and that the addition of composition activities to the band room would be a positive addition. He said, “I wish we had time to do more creative things. Composition is important, so lets structure it as a meaningful part of this [waves hand at the band room] and not just as a footnote in my lesson plan.” He felt that adding composition in after all repertoire had been selected and concerts scheduled made the planning more difficult. If composition activities were included as a part of the curriculum from the beginning of the year, it would be easier to fit it in as a part of the band culture and tradition.

In the band director journals and in the final interview the band director shared many discoveries made about teaching composition in his classroom. An additional theme, discoveries, was added as a fifth area of analysis in order to identify new perceptions gained from the experience. These discoveries and comments were categorized in two main areas: student accomplishment and teacher responsibility (see Figure 6).

The band director was surprised at the enthusiasm and curiosity that many students showed for the composition activities saying, “I was impressed by the number of kids who wanted to keep working on their compositions to get it done right. I never predicted so many would feel that way,” and “I had a few kids come to me about the way we built the rhythms for the first activity. They were intrigued by the novelty of it.” During the composition instruction period, this director included time for the students to share their musical ideas with the entire band. He was surprised by the number of students who volunteered to perform—some of whom he would never have expected to perform for their peers.

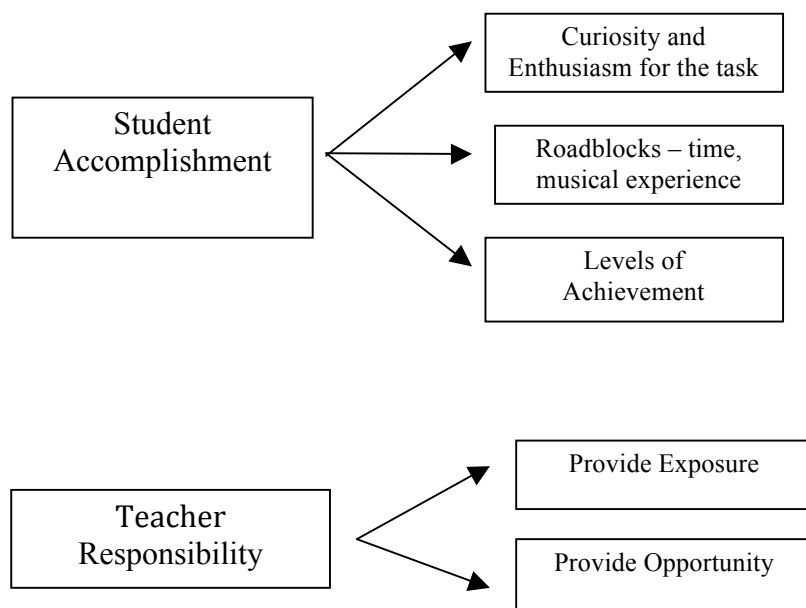


Figure 6. Band director discoveries

Some students, however, had difficulty writing music notation on the assignment sheet. The band director noticed the amount of time some of them needed to just think about the assignment. He suggested that “it seems that writer’s block, fear, or something is holding many of them back. It could simply be that they don’t have enough experience composing.” He also felt that many students tried too hard to compose a “complex or sophisticated piece and were slowed by the task. Some never got to the writing since they seemed to be overwhelmed by the need to make it perfect.”

In spite of some difficulties the band director felt that there were many students who achieved on a much higher level than he had expected. He stated, “It was neat to see and hear how several of the compositions used original student material in pretty sophisticated arrangements and variation.” He was also surprised to note that many of the more creative and

successful compositions came from students who were not his top performers saying, “I was impressed by some of the compositions, especially those by students who are the middle to lower performers in the group,” and “we saw some of these kids make some things happen that really blew me away!”

The band director commented frequently about the benefits of exposing his students to the composition activities. Prior to the instruction there was concern that the composition instruction would not be meaningful and could be a waste of time. Following the instruction, he seemed to find value in exposing his students to this creative process. He shared: “This really opened my eyes. What we do as directors certainly has an effect on inspiring the creativity of our students. Could they be as creative as they were if they didn’t have this exposure to certain things?” He felt that his students were fortunate to be exposed to creativity and composition in a way that students in most band program aren’t. “With exposure in a setting like this . . . some kids can really stand out and have an opportunity to go in that direction.”

This experience with composition inspired a sense of responsibility in this director. He said, “I see even more importance in the variety of material that we should be responsible for showing these kids.” The accomplishment and level of interest in his students was an inspiration to him, saying:

To see other people put in a situation where they were given an opportunity to be creative, where they normally aren’t . . . it really opened my eyes to the fact that there are so many different ways to be creative. So many different possibilities—even within our everyday scenario—to do something special.

### Talented Music Teacher Perception

*Creativity is the ability to make something that is new, or renew something that is old—something unique and different* (Definition of Creativity, Talented Music Teacher).

Interviews with the talented music teacher were conducted in his classroom during the final period of the day. This was a “planning period” so the classroom was empty and quiet except for the end of day announcements over the loudspeaker that occasionally interrupted our conversation. Like the band director, the rapport between this teacher and his students was warm and nurturing. Anecdotally, I noted many similarities between the two teachers, though they were not acquainted with one another. In fact, this talented music teacher spent some time as a band director earlier in his career. This teacher, who had a system of teaching composition in place, was eager to participate because he felt that having new activities would help him to improve composition instruction for his students.

The central themes of analysis used to explore band director perception were also used in the analysis of talented music teacher perception. Because music composition was a regular part of this curriculum, no significant changes in perception were identified from pre- to post-instruction interviews. In addition, this talented music class curriculum had a composition program in place—and composition instruction was expected as an identified goal for each student in his or her individualized education plan (IEP). Few challenges to composition instruction were noted; therefore general perceptions of the teacher are discussed in each theme area (see Figure 7) and are discussed in the same order as the band director post-instruction comments.

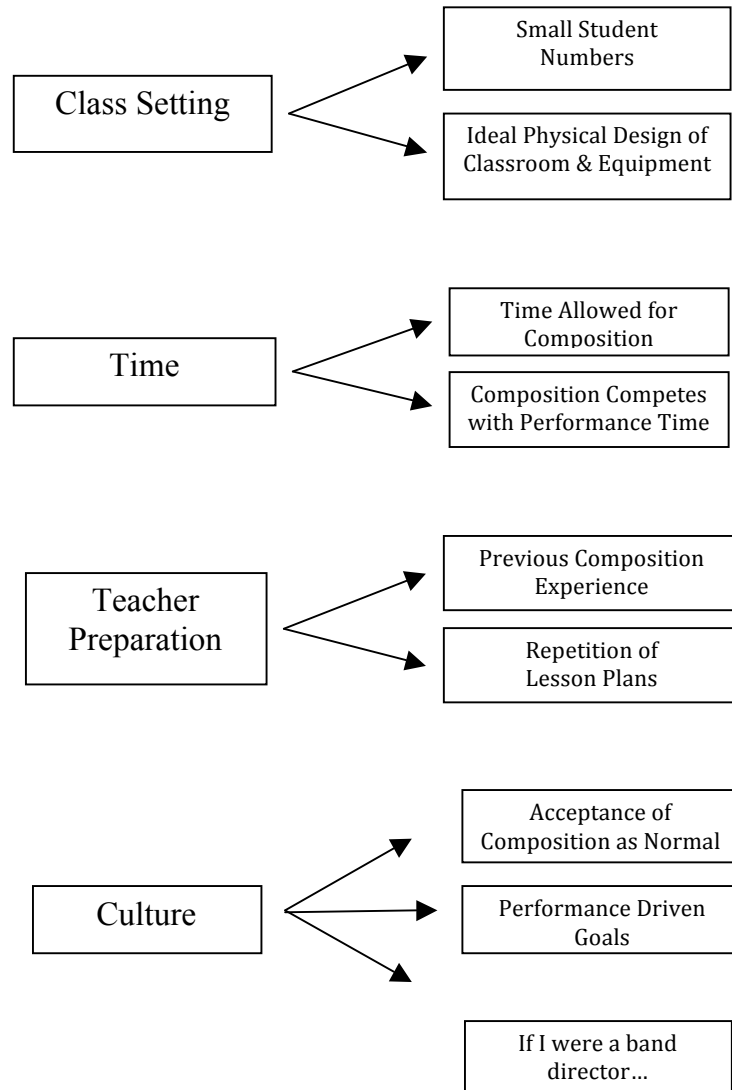


Figure 7. Talented music teacher perceptions

The dominating difference between the band program and the Talented Music Program lies in the setting. The setting here was not a typical band room, but a regular classroom located on a peripheral wing of the campus. There were only 10 desks in the classroom because of the smaller number of students in each class. It is a comfortable room with student-made posters of famous composers on the walls and electronic keyboards in every corner. Each keyboard had a set of earphones so that independent work could easily occur. Class size ranged



from two students in the smallest class to eight in the largest. This teacher taught five classes each day of the week. He believes that this setting allows composition to be taught very effectively, saying “In a class like this, with kids who already know something about music, the challenge of teaching composition is more meet-able,” and “As a talented music teacher, composition is one of the most important musical abilities that we study in class. Developing creativity is one of the most gratifying jobs I have as a teacher.”

In addition this setting requires instruction in music theory and music history. Often the students are able to enroll in the class for multiple years. This allows the teacher to plan for student musical development over a long period. This teacher noted that as the students composed over multiple years, they improved in their composition work. He explained, “You look at what they come up with as a freshman versus what they come up with as a senior. There is usually a pretty steep learning curve there.” In field observations during the composition instruction I noticed that the teacher made frequent references to previous theory and music history instruction. This setting provides the ability for the teacher to connect the different dimensions of music. It was also noted that there was good rapport between teacher and students and that this teacher had ample time to provide individual instruction for each student who had questions. When asked to complete a composition task related to the composition instruction provided, the students seemed very comfortable in moving to the pianos and getting to work. Independent work was a normal part of their classroom experience.

Time was a frequent theme during interviews with this teacher. In spite of the fact that he was not planning a band rehearsal, he was trying to fit composition, history, theory, and performance instruction into his curriculum. In addition to planning for individual instruction in the classroom, this teacher was the music director for the senior class play at the school. Many of

the students in his class were also participating in the orchestra for the show. He admitted that “time is an issue because with a whole music curriculum, you could have three classes a day and still have trouble getting to every aspect in the right amount. That to me is a challenge.” This teacher also felt that time was an issue for his students in completing the composition activities within the 50-minute class period. “Getting the kids to write the stuff down on paper was a big challenge. Nine times out of ten they scribbled notes on the page and good luck interpreting that. I felt like they always wanted more time.”

The talented music teacher had been working in the program for four years, but like the band director felt unprepared to teach composition when he first began teaching in the program. Comments such as, “When I learned that I needed to provide composition instruction I started to freak out because I had never really composed anything before. I was concerned,” and “I think my weakness as a composition teacher is that I don’t know how to teach ‘newness’ because I’m not a composer myself. Even though I have the kids compose, I really don’t compose,” support this theme. Also like the band director, this teacher felt that his wide experience in music as a professional classical musician, band director, and rock band performer provided some background for teaching composition successfully saying, “I’m able to stand on the shoulders of giants a little bit because I’ve listened to so much music and have performed so much music that I can take elements of all that,” and “I feel that when I listen to a student’s composition and they are not sure where to go, I can hear it and put it through 15 different lenses and suggest different directions. I feel like I can bring a lifetime of musical experience to bear on the problem.” He felt his experience allowed him to accept and work with student compositions in many different styles.

Preparation for class was always a challenge for this teacher. He had students of differing ages and musical ability in each class making preparation of teaching composition skills difficult. He shared, “No matter how hard I try to prepare, I never feel like I know what is going to happen with the lesson until I do it.” The advantage in this program is that the lesson was presented to more than one class, allowing the teacher to make adjustments to the lesson plan as the day progressed. “That was the case with these lessons. First hour I’d be unsure. By the fourth hour I’d be pretty comfortable. The same thing happens with everything that I teach. The kids who get a music history lesson at the end of the day get a better lecture than those at the beginning of the day.” Indeed, it was interesting for me to observe how the instruction changed from class period to class period as this teacher tried to make each composition lesson more successful for his students.

The culture of this program made the instruction in composition an accepted activity. It was well known at the school that the teacher planned time for composition in the fall and the student composition recital was a regular occurrence in the early part of the spring semester. Yet as in the band program, the belief that performance should be the focus of the curriculum existed here as well. Several of the composition lessons were interrupted or rescheduled for rehearsals needed for the senior play. The performance part of this program focuses more on individual development rather than ensemble performance and is only part of the curricular plan. The teacher said, “The thing that frustrates me about this class is that I think we don’t play enough. There is so much more to do, and yet, they have to play . . . you know?” and “you can be too diversified. I feel that to really understand music you have to be able to play an instrument and/or sing.” With experience as a band director, this teacher reflected frequently on how he would feel

about teaching composition if he was still a band director. He replied, “I don’t know. I’d like to think that I would continue to teach it but in all honesty . . . I know in this class how upcoming performances tend to monopolize class time.” In his position as a Talented Music teacher composition is accepted and he values its place in his curriculum. However, when asked if he would now consider teaching composition in his band program if he returned to that role, the teacher was hesitant saying, “As a band director, you are so much under the gun for performance issues. I know that it would be very difficult for me to relinquish my rehearsal time. No matter how beneficial, I think I would say that I could sure use more rehearsal time!” When asked if he would include composition in a band program knowing its potential benefits to the students he said, “I am extremely competitive. Even if there was no doubt in my mind that this would be more beneficial than the rehearsal time we would be losing, it would be difficult, but I think I probably would include it.”

The depth of experience that the talented music teacher had in teaching creativity through composition provided very definite ideas about the benefits to his students (see Figure 8).

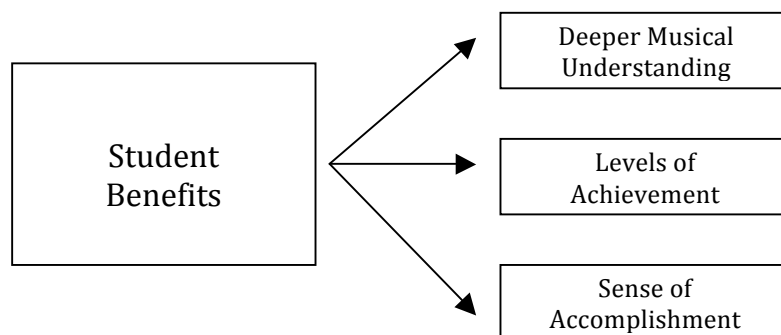


Figure 8. Student benefits from composition and creativity

These beliefs regarding creativity development in his students come from his four years of experience in teaching composition as well as through the six weeks of instruction that he provided to his students through this study. The talented music teacher believed that the study of composition contributed to a much greater depth of musical understanding in his students. Comments such as: “ It forces you to think about music from an entirely different perspective. If you have never written any music, you take certain things for granted that you don’t fully understand when you are playing other people’s music. When you start to write your own music, you think about music from the composer’s perspective,” and “It helps them to read music because they have to notate the rhythms they hear in their heads. They also learn more about the instruments they are writing for,” and “I think that it encourages them to see that this is music and it needs to be brought to life, not just played through.”

Like the band director, this teacher noticed that the most talented performers do not always accomplish high levels of creativity and composition achievement. As previously mentioned, this teacher believes that composition experience does provide student with the opportunity to improve composition ability, however he notes that he cannot predict who the best composers will be saying:

I tend to think that the ones who are the best players, or are the brightest academically will be the best composers, but that is not always the case. I’m always surprised by this. Sometimes the smartest and best musicians turn out mediocre compositions or are completely stifled by the assignment. Others who really are at the back of the class for everything else come up with pretty original compositions that I had no idea were in them.

Perhaps the most powerful benefit to composing in the classroom identified by this teacher is the sense of pride and accomplishment the students feel when they hear their works performed. He shared, “I think one of the biggest benefits to composition instruction is that . . . you’ve written a piece of music. Whether they admit it or not they are pleased. It gives them a strong sense of accomplishment,” and “composing gives them musical self confidence.”

### **Student Attitude**

Student attitude was first explored through analysis of pre and post instruction attitude surveys administered to students in both programs. A “comment” section followed each survey statement and students were encouraged to write down any thoughts they wished to share. The survey comprised 16 statements such as: I am sure that I can write a good composition, composing is a waste of time, and I would like to learn how to compose music. All statements can be viewed in Figure 1. Attitude was further investigated through qualitative analysis of student composer journals and through pre- and post-instruction interviews that were conducted with three students of differing abilities in each program.

### **Attitude Survey Results**

The main research question in this section was to understand student attitude toward creativity through composition and to determine whether attitude changed following composition and creativity instruction. Attitude survey ratings (1-5) were summed to produce an overall attitude score. Questions five, six, seven, ten, thirteen, fourteen, and fifteen were stated in the negative and reverse scored in order to assess positive attitude. The range of possible scores was 16 to 80, with a score of 80 indicating the most positive attitude toward creativity. On the pretest the mean score for the talented music students ( $M = 63$ ) was higher than that of the band students ( $M = 55.79$ ). In order to investigate group difference, the pretest scores of both groups were

compared using a Mann-Whitney *U* test (see Table 2). This test determines whether the distribution of scores for one sample is significantly different than another (Hinkle, Wiersma & Jurs, 2003). Before composition instruction began, student attitude in the Talented Music Program was significantly more positive than the student

Table 2

Mann-Whitney *U* test: Comparing group differences in attitude pre- and posttest

	Talented Music Program	Band Program	<i>Z</i>	<i>p</i>
Pretest Mean Rank	57.48	39.71	-2.809	.005*
Posttest Mean Rank	48.02	42.72	-.839	.401

\* Significant at  $p < .01$

attitude in the band program ( $z = -2.809, p = .005$ ). Following the instruction period there was no significant difference between the groups ( $z = -.839, p = .401$ ).

Since there was a significant difference between the programs before composition instruction, the decision was made to examine each program independently. Wilcoxon Matched-pairs signed-rank tests were used to compare pretest to posttest ratings within each program. This test is commonly used in pre-test/posttest design—using ordinal data with dependent samples (Hinkel, Wiersma, & Jurs, 2003). There was no significant change in attitude from pretest to posttest in the Talented Music program ( $z = -.070, p = .944$ ). These experienced students remained very consistent in their attitude towards composition in their classroom. In the band program, with no previous composition experience, there was a significant change in attitude from pre- to posttest ( $z = -2.905, p = .004$ ) indicating a more positive attitude toward composition following the composition instruction activities.

An analysis of each attitude survey question was completed to identify areas of significant change in attitude for the band students (see Table 3). Wilcoxon Matched-Pairs Signed ranks analysis revealed five questions in which band student attitude changed

Table 3

Wilcoxon Matched-Pairs: Analysis of band program attitude survey responses

High School Band Program Attitude Survey Questions	Pretest Mean Ranks	Posttest Mean Ranks	<i>z</i>	<i>p</i>
1. <i>I enjoy expressing my thoughts and feelings through music performance.</i>	14.17	15.89	- .112	.911
2. <i>I feel secure in attempting to compose music.</i>	20.69	16.92	- 2.531	.011*
3. <i>I am sure that I can write a good composition.</i>	21.55	19.06	- 3.568	.000*
4. <i>I think I could learn to compose.</i>	16.88	20.45	- 1.600	.110
5. <i>I am no good at composing music.</i>	24.22	21.46	- 3.216	.001*
6. <i>I am not the type to do well in composition</i>	18.42	18.68	- 2.159	.031*
7. <i>I can handle most musical tasks, but composition would be a problem.</i>	20.50	17.97	- 1.535	.125
8. <i>Composing music does not scare me.</i>	19.52	21.40	- 2.566	.010*
9. <i>I would like to learn how to compose music.</i>	16.27	16.66	- 1.036	.300
10. <i>It would embarrass me to have people hear the music I compose.</i>	22.31	22.78	- 1.038	.299
11. <i>I admire anyone who can compose music.</i>	14.06	12.60	- 1.323	.186
12. <i>I would like people to hear the music I compose.</i>	17.90	21.28	- .197	.843
13. <i>Composing is a waste of time.</i>	12.25	14.93	- 1.703	.089
14. <i>Composition makes me feel uneasy and confused.</i>	17.50	18.67	- .604	.546
15. <i>It is impossible to express personal feelings through music.</i>	9.37	12.38	- 1.922	.055
16. <i>Composition is a way to creatively express my feelings through music.</i>	17.50	14.83	- 1.723	.085

\* Indicates a significant change to a more positive attitude



significantly from the pretest to the posttest. Survey statements indicating significant change to a more positive attitude were: I feel secure in attempting to compose music ( $p = .011$ ), I am sure that I can write a good composition ( $p = .000$ ), I am no good at composing music ( $p = .001$ ), I am not the type to do well in composition ( $p = .031$ ), and composing music does not scare me ( $p = .010$ ). A sixth survey statement approached significance ( $p = .055$ ) from pre to posttest stating it is impossible to express personal feelings through music.

A more extensive qualitative analysis of student attitude was conducted using the student comments following each significant attitude survey statement. In statement two-pretest, *I feel secure in attempting to compose music*, students did not really indicate any negative feelings towards composition. Rather, they indicated that they were simply unfamiliar with the idea of composition. Statements such as “I will feel more secure when I learn more about it;” “I don’t know how well I will do,” and “I tried to compose once and never finished,” indicated an uncertainty about the process of composition. Additional statements indicated willingness to learn. “I can’t wait, I’ve always wanted to compose” and “I think I could do it” support this idea. For statement two-posttest, students moved to a more definite opinion regarding the question. Some indicated a positive experience but understood that there was much more to learn stating, “I liked the opportunity to do this, but I’m not confident,” and “Composing began to get easier, but I’m not a pro yet.” Some students indicated stronger feelings about the difficulties of composition saying, “This was a challenge and much harder than playing,” “I don’t know if it sounds good,” and “I didn’t enjoy it, I’m not an expert.”

Statement three-pretest, *I am sure that I can write a good composition*, also indicated student uncertainty regarding the composition process due to lack of experience. Many students responded that they had “never tried” so they were undecided. Several indicated that they felt

that with experience they could improve with statements such as, “With practice, I could write something decent” and “I could get the idea of composition, but I would have trouble with the details.” In statement three-posttest, the uncertainty was replaced with an understanding of the process and identification of some challenges the students would face in composing in the future. Student comments included: “I know I can, with more time and fewer distractions,” “If I learned more, I’d be good,” and “I’ve done it now. It may take time, it may take a while, but I’ve done it.”

Statements five and six, *I’m no good at composing music*, and *I am not the type to do well in composition* were the reverse of statement three. Pretest comments here were very similar to statement three indicating that the students had no real opinion regarding the statements because they had never really tried to compose before. Following the instruction period, posttest comments were interesting and indicated an acceptance of multiple creative ideas as important. Student comments included: “No composition is wrong,” “Everyone is good in their own way,” “I am creative enough to compose,” and “Everyone is good at composing.”

In statement eight-pretest, *composing music does not scare me*, the students indicated a variety of responses, indicating that this question was not received the same way by the students. Statements such as “I’m really excited about it,” “What if I’m not good at it,” and “Why would it scare me?” indicate the different types of responses. For statement eight-posttest the students were much more consistent in their responses. They were very positive and definitely not “scared” of the process. “I’m open minded. This was fun,” “When you try something new, you can’t be scared of it or you’ll likely fail,” “It is challenging and different, but that is what makes it fun,” and “I like to compose, but I feel like I still have a lot more learning to do” support this

conclusion. Other interesting comments for this question were: “Music is not scary as long as you stick to what you know,” and “It is still scary, even if you are good at it.”

Statement 10, *it is impossible to express personal feelings through music*, approached significant change from pre to posttest, but student written comments remained very consistent for both tests. The students believed that music is an excellent way to express personal feeling both in performance and in compositions. Interesting comments were: “Music equals personal feelings,” and “That’s what music is about, another form of communication.”

### Student Interviews and Journals

Student interviews and journals that were collected revealed further insight into student attitude towards creativity and composition. It should be noted that journals were not required, and they were collected only if the student wished to turn it in. In the band program the students were strongly encouraged by their band director to complete the journals. There was not such encouragement in the Talented Music Program.

In both pre- and post-instruction interviews, the students were first asked to share their definitions of creativity and music composition. Students in both programs generally agreed on the following dimensions of the creativity construct:

1. Creativity is personal expression of feelings and emotions and should provide personal enjoyment.
2. Creativity is doing something unique, and different from the norm.
3. Creativity must be expressed in a public form.

The following are typical student definitions of creativity:

1. *Creativity is doing what the heart says to do.*

*2. Creativity is expressing your thoughts, your feelings, and your emotions visibly so that others can see.*

*3. Creativity is a way of doing things that is different from the norm.*

The following are typical student definitions of music composition:

*1. Composition is expressing yourself, not in words, but in melodies and patterns that sound good.*

*2. Music is a universal language. Composition is what your heart is saying and what you are feeling—expressed through music.*

*3. Composition is putting sounds together to make something that pleases you and pleases the ear. It is something original to you.*

Prior to composition instruction, the students in the band program identified potential benefits to composition in the classroom as 1) helping to generate greater interest in the band program and 2) an opportunity for personal expression. Statements that support these comments are, “People might be more interested in band with composition. Who knows? Something a little different—it might help them to express themselves better,” and “Composition will fuel creativity. It might motivate students to do something other than just go with the flow.”

Following the instruction period, students (now both groups with some experience in composition) agreed that benefits to composition in the classroom were to be found in the opportunity for personal expression and the development of greater depth of musical understanding. Student comments were, “Composition helped us to understand the music better,” and “Composition definitely sharpens skills.” Students in the Talented Music Program also identified the development of individualism as a benefit saying, “Composing teaches you to

think for yourself,” and “Composing creates a sense of individualism.” Following instruction, many band students identified a benefit to composition as providing “fun” in their classroom. Comments shared were: “Composition is fun and it allows a lot of creativity,” and “It was a lot more fun than I thought it would be.”

Before their experience with composition, students in the band program identified expected challenges to creativity. Interviewed students felt that some band members might be bored with composition in their classroom saying, “A challenge to composition will be that some people might not necessarily care about doing it. They might just joke around the whole time,” and “Some kids may get bored and goof off.” A second challenge was identified as concern that composition would be a very difficult subject. A frequent comment was the idea that students had music in their heads but did not know how to get it on to the paper. “In my head I can hear whatever music I want to make up, but it is taking your thoughts and putting them on a piece of paper that might be difficult,” and “Learning it may be hard. I’m sure it is hard to take something you hear in your head and put it on a piece of paper. You’ve got to learn things that you didn’t ever put thought into before” are examples of this often heard concern.

Following composition instruction, students in both programs identified time as the major challenge to creativity and composition in their classrooms. Not having enough time to think about what they wanted to write and feeling pressure to meet deadlines were roadblocks for these students. Student comments were: “Time was a challenge! Only having 50 minutes to do the lesson and compose—it went by very fast” and “Deadlines were a problem. It takes a long time to think, rethink, and then revise. I’m sure composers may have deadlines when they are writing, but when you rush the process you are not as happy with your final piece.” Even after the experience of composition students in the band program still felt a sense of frustration with the

struggle they felt in getting the musical ideas out of their heads and onto the paper. One band student stated the problem clearly, “I can hear the notes in my head, but when I try to write them down, they don’t sound right!”

The interviewed students were asked to share their feelings regarding the importance of general creativity. The prevailing attitude was that creativity was very important as a way to express individuality. Student comments included: “It is important to be creative so that others can identify you for who you are” and “It is important to be creative because if you are always following somebody else’s thoughts or orders, you lose yourself. It is about individuality.” When asked about the importance of creativity in music specifically the students felt that creativity was important to musicians and while some felt that composing was critical to development as a musician others explained that there were multiple ways to be a creative musician. A band student shared “You may not be first chair, but you can find ways to be creative in the ways that you play your music.” One talented music student with an extensive musical background and plenty of previous composition experience stated:

It is important for good musicians to compose. You could just play everyone else’s stuff, but then you are just a copycat. If you want to be a musician or an artist, you would have to come up with your own stuff.

Finally, the students were asked whether composition changed the way they think about music when they are playing it. There was a unanimous positive response to this question from all six students. These comments from students in both programs may help to define a critical benefit to teaching composition in the classroom: “With composition there is a deeper involvement with the music” and “It is really hard to get the notes exactly right and to put in accents and decrescendos and stuff like that in the right places. I appreciate it more now.”

A student from the band program shared the following words:

Now I look at a piece of music and I can tell that the person who composed it was probably feeling something that they were trying to express. Knowing about composition makes me feel like I should try hard to bring out that feeling.

### **Evaluation of Student Compositions and Creativity**

How do different types of musical evaluators, specifically classroom music teachers involved in teaching music composition, high school students involved in the actual composition process, and music composition “experts” compare in their assessment of the creativity of high school musicians as demonstrated through their compositions? In order to answer this question, thirty compositions (10 from the Talented Music Program and 20 from the Band Program) were randomly selected for evaluation. The agreement of the three different judging groups was determined using the Kendall Coefficient of Concordance  $W$ . This test measures the agreement between the ranks assigned to related variables across multiple judges (Norusis, 2005) and is often used for reliability when correlation assumptions cannot be met. Data were collected using ordinal measurement. To control for order effect, teacher judges and expert composer judges each heard the compositions in random order. However, the students in the band program rated the compositions during their band period, so random order could not be accomplished. Because of the limitations of class time, all band students heard the compositions in the same order. Students in the Talented Music Program rated compositions in a different order from the Band Program. Compositions were assessed for creativity, craftsmanship, and aesthetic value. Composer and teacher evaluators were asked to use their own definitions. In the talented music and band classes, the students were asked to use their own definitions, but a brief discussion was

held to make sure that the students understood the difference between each dimension. Creativity was discussed in each classroom as part of the creativity-relevant instruction (Amabile, 1996) and each student had given some thought to their own definition of creativity. Before beginning the evaluation process, the students were asked to think of craftsmanship as how well each composition was musically constructed or “put together.” Aesthetic value was described as musically pleasing. The students were asked to think about how the music affected them and whether they would like to hear the composition again. Each evaluator heard the recording of all 30 compositions two times. During the first hearing, the evaluators were asked to sort the compositions into two categories: “pleasing” and “less pleasing.” The goal for this first hearing was to give the listener a chance to make preliminary decisions about what was creative, levels of craftsmanship, and levels of aesthetic value. On the second hearing, the evaluators were asked to rank the compositions by placing an “X” on a scale from one to five (low to high). A sample of the judging form can be viewed in Appendix F.

There was moderate, but not significant agreement within the expert composer group (see Table 4). All three dimensions, creativity, craftsmanship, and aesthetic value were approximately equal with aesthetic value showing a slightly higher level of agreement. Expert composers were not reliable in their analysis of student compositions.

Table 4

Kendall Coefficient of Concordance: Expert composer evaluation agreement (3,  $N = 30$ )

Dimension	$W$	$\chi^2$	$p$
Creativity	.426	37.028	.146
Craftsmanship	.426	37.062	.145
Aesthetic Value	.431	37.504	.134



All participating students completed student evaluations. To determine student agreement, 15 percent of the evaluation forms were randomly drawn from each student population resulting in four student evaluation forms from the Talented Music Program and 11 from the Band Program. Student agreement was observed in each group as well as a combined student-judging group. Total student evaluation resulted in significant,  $p = .000$ , but moderate agreement for the 15 students in all three dimensions (see Table 5). The agreement for creativity was the lowest dimension of agreement ( $W = .340$ ). As it was in the expert composer group, aesthetic value ranked the highest ( $W = .378$ ).

Table 5

Kendall Coefficient of Concordance: Total student evaluation agreement (15,  $N = 30$ )

Dimension	$W$	$\chi^2$	$p$
Creativity	.340	147.745	.000*
Craftsmanship	.360	156.448	.000*
Aesthetic Value	.378	164.253	.000*

\* Significant at  $p < .001$

When the student groups were examined individually there was an increase in the levels of agreement. The Kendall agreement statistic for the band students ( $n = 11$ ) was moderate in all three areas, but highly significant (see Table 6). For these students aesthetic value and craftsmanship ( $W = .458$ ) were the higher areas of agreement followed by creativity, which was the lowest ( $W = .406$ ).

Table 6

Kendall Coefficient of Concordance: Band student evaluation agreement (11,  $N = 30$ )

Dimension	$W$	$\chi^2$	$p$
Creativity	.406	129.694	.000*
Craftsmanship	.458	146.201	.000*
Aesthetic Value	.458	146.011	.000*

\* Significant at  $p < .001$ 

Talented Music student agreement ( $n = 4$ ) was not significant for craftsmanship ( $W = .344$ ). Agreement in the areas of creativity ( $W = .443$ ) and aesthetic value ( $W = .547$ ) were significant (see Table 7). It is interesting to note that all of the students were able to judge their compositions much more reliably than the expert judges, possibly indicating that they are more familiar with the domain than the experts who were removed from the school populations.

Table 7

Kendall Coefficient of Concordance: Talented music student evaluation agreement (4,  $N = 30$ )

Dimension	$W$	$\chi^2$	$p$
Creativity	.443	51.352	.006*
Craftsmanship	.344	39.875	.086
Aesthetic Value	.547	63.451	.000**

\* Significant at  $p < .01$  level\*\* Significant at  $p < .001$  level

Teacher ( $n = 3$ ) evaluation was significant in all three dimensions (see Table 8) and showed the highest levels of agreement of all of the groups (creativity,  $W = .620$ ; craftsmanship,  $W = .713$ ; and aesthetic value,  $W = .686$ ). It is interesting to note that teachers were the only group to evaluate craftsmanship more reliably than aesthetic value. The higher levels of agreement here indicate that the teachers of these student composers may be the best qualified to evaluate the compositions of their students. Therefore, teacher scores were used to examine the relationship of student background variables to the creativity, craftsmanship, and aesthetic value of their compositions.

Table 8

Kendall Coefficient of Concordance: Teacher evaluation agreement (3,  $N = 30$ )

Dimension	$W$	$\chi^2$	$p$
Creativity	.620	53.924	.003*
Craftsmanship	.713	62.054	.000**
Aesthetic Value	.686	59.645	.001*

\* Significant at  $p < .01$  level

\*\* Significant at  $p < .001$  level

### Relationship of Student Background to Creativity

The final question investigated in this study was the potential relationship between a student's musical background and their creative products as evaluated in the dimensions of creativity, craftsmanship, and aesthetic value. Teacher scores were averaged in each dimension and used for analysis because of the high degree of agreement for these evaluators. Years of experience on their primary instrument, years of previous composition experience, and music

aptitude were the student background variables investigated to determine these potential relationships. Music aptitude was determined from student tonal, rhythmic, and composite raw scores on the Advanced Measures of Music Audiation (Gordon, 1989). Pearson product-moment correlations were used to examine these relationships (see Table 9) in the evaluated compositions from both programs ( $N = 30$ ).

Table 9

Correlation table: Student background and creativity assessment

	Creativity	Craftsmanship	Aesthetic Value
Yrs exp primary instrument	.384*	.534**	.494**
Pearson Correlation	.036	.002	.006
Sig. (2-tailed)			
Yrs composition exp			
Pearson Correlation	.324	.548**	.442*
Sig. (2 tailed)	.081	.002	.015
AMMA-Tonal Raw Score			
Pearson Correlation	-.001	.270	.288
Sig. (2 tailed)	.994	.149	.122
AMMA-Rhythm Raw Score			
Pearson Correlation	.084	.319	.356
Sig. (2 tailed)	.658	.086	.053
AMMA-Composite Raw Score			
Pearson Correlation	.046	.309	.339
Sig. (2 tailed)	.811	.096	.067

\* Correlation significant at the  $p < .05$  level   \*\*Correlation significant at the  $p < .01$  level

The correlation between years of experience on their primary instrument and creativity was significant,  $r(28) = .384$ ,  $p = .036$ . This was the only variable with a significant relationship to creativity, however this correlation was moderate. Stronger correlations were present for years

of experience on primary instrument and craftsmanship,  $r(28) = .534, p = .002$  and years of experience on primary instrument and aesthetic value,  $r(28) = .494, p = .006$ . Years of composition experience correlated significantly with craftsmanship and aesthetic value ( $r(28) = .548, p = .002$  and  $r(28) = .442, p = .015$ ) but there was no significant relationship between creativity and these variables.

There were no significant correlations with student AMMA scores and creativity, craftsmanship, and aesthetic value. It is interesting to note that the AMMA rhythm raw score and aesthetic value correlation was nearly significant,  $r(28) = .356, p = .053$ . This might indicate that student aptitude in the area of rhythm may improve the potential to create an aesthetically pleasing composition.

An examination of the descriptive statistics for the top four compositions in each category can be viewed in Table 10. Students from the Talented Music Program composed the top four compositions in the categories of Craftsmanship and Aesthetic Value. However, the creativity category is split with two students from the band program and two students from the Talented Music program. It is interesting to note that the Talented Music students with the top compositions are all piano players with more than seven years of experience on the piano. The two band students placing in the top four compositions in the dimension of creativity are students with no previous composition experience, no private instruction outside of the school setting, and only four years of experience on their instruments (flute, trumpet).

Descriptive statistics for all 30 compositions can be viewed in Appendix I. The *Finale* scores for the highest rated compositions in the creativity dimension can be viewed in Appendix J.

Table 10

Descriptive statistics: Top four compositions in each category

	Comp. Number	Program	Years of Inst. Exp.	Yrs. Comp. Exp.	Averaged Teacher Scores	Instr. Played
Creativity	11	Tal Mus	12	2	46	piano
	23	Tal Mus	10	3	46	piano
	20	Band	4	0	44	flute
	21	Band	4	0	43.33	trumpet
Craftsmanship	11	Tal Mus	12	2	48.67	piano
	23	TalMus	10	3	47.33	piano
	19	Tal Mus	7	1	45.33	piano
	4	Tal Mus	7	4	43.33	piano
Aesthetic Value	11	Tal Mus	12	2	49.33	piano
	23	Tal Mus	10	3	47.33	piano
	19	Tal Mus	7	1	45.33	piano
	4	Tal Mus	7	4	42.67	piano

Note. Range of possible scores from 10 to 50 in each dimension.

## CHAPTER 5: DISCUSSION

*A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident.* (Yin, 2003, p. 13)

Context is an important dimension of this study. The goal of establishing National Standards in Music was not to create isolated dimensions of instruction, but to integrate learning within and across artistic disciplines (Consortium of National Arts Education Associations, 1994). Adopting National Standards in Music will only make an impact if they are implemented and to suggest that one area is more important than another is not the goal of this study. In describing the role of teaching composition, the Composition and Arranging Benchmarks (National Association of Music Educators, 2002) read, “Skill in composition is not an isolated ability, but should be associated with other musical skills, including performing and responding to music” (p. 3). A unique aspect of the present study was the implementation of creativity development through composition instruction, and examination of the attitudes and perceptions resulting from the instruction, within the *context* of two differing high school music classroom settings. The contrast of one traditional performance classroom and one less traditional comprehensive musicianship approach provided the ability to observe attitudes towards and perceptions of composition in students with and without composition experience. Interviews with teachers and students, observations of teachers and students at work, analysis of attitude surveys and comments, and examination of student compositions and their assessment allow the reader to gain a comprehensive look at the challenges, benefits, and possibilities of adding music composition as a regular part of music instruction in the traditional classroom.

## Teacher Perceptions

The four major themes identified (performance culture, time, class setting, and teacher training or preparation) did not come as a surprise. These themes support findings of previous research in challenges to creativity (Hickey, 1997; Kennedy, 2002; National Association of Music Educators 2002; Paynter, 1982; Stephens, 2003; Strand, 2006). Of interest is the fact that *both* teachers and students cited the themes of time and performance culture as challenges to creativity. Teachers frequently state that there is not enough time to accomplish their desired goals in the classroom. In this case, the students were in agreement that there was not enough time to give necessary thought to the composition activities. Composing is a thought-intensive process and time is required to think through and develop musical ideas (Kennedy, 2002; National Association of Music Educators, 2002; Strand, 2006). The Talented Music facilities were better set up for students to compose at keyboards, yet the students in this program still felt that there was not enough time. This lack of time may be the biggest challenge facing teachers who want to teach in a comprehensive manner. The band director admitted however, that as busy as his band program was, there was still time for both performance and composition instruction. He felt that there were times during the school year that contained more “down time” and that with good planning, composition instruction could be effectively integrated into his curriculum. The challenge is to find time for appropriate instruction in all necessary areas—a challenge educators face on a daily basis.

Teachers in both programs identified similar benefits to creativity development in their students. First, composing allows the students to think about music in a different way from performance. Comments such as “greater depth of understanding,” “thinking from a different perspective,” and “they are writing, reading, and thinking about music in a different way”



support the teacher discovery that composition can increase musical understanding. This type of in-depth thinking in music lends support to the idea that adding composition instruction to the curriculum may not diminish a group's performance, but actually enhances it (National Association of Music Educators, 2002). Student comments about thinking differently about the music they perform after composing themselves is certainly critical to the concept of increased musical understanding. It is important to view creativity development and composition instruction as a valuable partner to performance goals, not as a replacement for them.

Another benefit to composition instruction expressed by both teachers is the idea that success in creative composition does not always relate to high levels of musical skill in performance. The teachers in both programs identified exceptionally creative ideas that came from students who were not the "top performers." The band director was pleasantly surprised by the creative efforts of some of his lower performing students. One young man in particular, who was the "last chair" in his section, came up with surprisingly creative and well crafted ideas. He was excited about what he had written, and as the composition activities were shared at the end of a class period, his classmates were also impressed with his accomplishments. This type of successful musical experience in a student viewed as an average performer may be important in the goal to help every student develop to their full musical potential—in domains outside of performance. For the band director this implied a responsibility for music educators to provide a variety of musical opportunities in order to reach more students. The possibilities of reaching all types of students through differing dimensions of instruction should certainly inspire further research.

I was extremely fortunate to work with two exceptional teachers, in completely different settings. Both teachers taught the composition activities using the lesson plans and "suggested

strategies” that were provided for instruction, but were free to add their own ideas and techniques to make the instruction appropriate for each class setting. In the Talented Music program the composition instruction was provided through casual, somewhat “intimate” conversation. The small class setting allowed the students to interject comments and ask questions at any point during the instruction phase of the lesson. This warm and nurturing setting certainly provided a “safe” atmosphere for the students to freely develop creative ideas. As the students moved to keyboards to work on each assignment they were able to request help from their teacher at a moment’s notice. The teacher could walk around and spend some time with every student in each class period. It was clear that this setting, with keyboards, earphones, and small numbers, was a very conducive venue for composition.

The band director initially saw the class setting as a strong challenge to composition instruction in his classroom. In the beginning of the program he felt uncomfortable planning this new area of instruction for 75 students. During the instruction period he asked many questions of his students and encouraged student comments, but with 75 students only a few would raise their hands and share their thoughts. He also understood these students and their musical backgrounds. After the first week of composing, the students expressed frustration that they needed more time to complete their work. During the next weeks of instruction, the band director carefully guided their learning experience by setting parameters for each area of instruction. For example in Composition Lesson four on “melodic motive development” (see Appendix D), he allowed five minutes for the students to develop an initial motive. He encouraged simplicity, so that the students were able to manipulate or develop the motive. He had students volunteer to share their motives. Then, he gave them ten minutes to develop each motive in three different ways. Again the students shared with the class—playing their initial motive first, followed by the

development ideas. Setting small goals that seemed manageable seemed to really help these new composition students to be successful and not overwhelmed by the process. This use of parameters for instruction has been previously studied (Brinkman, 1995; Salaman 1988) in slightly different settings. In his research with high school musicians, Salaman found that when students had clear understanding of the musical devices to use and models to emulate, creativity was not inhibited but encouraged. Working with this large number of students in the band program presented greater challenges to composition instruction than in the smaller, more intimate Talented Music setting, but the experiences for these students and their teacher were illuminating and beneficial.

There was concern expressed by both teachers that they were never really trained to teach composition. In the final interview, I asked them what type of training as pre-service teachers would have better prepared them to teach composition in the classroom. They both felt that a large and varied exposure to different types of music in their lives as performing musicians helped, but training and composition experience in their pre-service methods classes would improve confidence and knowledge on how to effectively teach composition. The band director described a situation in which composition instruction might be effectively addressed for future music teachers:

I think that the main thing would be to give the students [future teachers] an opportunity to compose. Creating something, not unlike the series of lessons that we did here. I really liked how it was a progression...a walk through different techniques in composition that weren't so rigid as you might do in an actual composition class. We didn't spend a lot of time in the technical aspects of it. It was so open ended. There really weren't any wrong

answers. That gave everyone a chance to just compose independently, with no fear of being incorrect—just getting through that initial barrier.

### **Student Attitude**

Attitude surveys revealed that attitude toward composition in students from the Talented Music Program remained virtually unchanged following composition instruction. It is likely that with plenty of experience in the domain, student attitudes here were already established and unchanged by the implementation of several new activities. Many students commented that they were happy to have some new methods to use when they begin work on their next major composition for the class.

The band student attitude became significantly more positive after composition instruction experience. It is probable that providing education and experience in the domain would improve understanding, ability, and therefore attitude. It is also interesting to note that while band student attitude improved with understanding that composition instruction contained activities and tasks they could accomplish, many students also expressed a realization about how much more there was to learn in order for them to be truly successful. Following a lesson on developing countermelody, the students were asked to give their opinions on writing for two or more voices. Band student responses were mixed with comments such as, “This was fun, but challenging,” “It is difficult when you are writing by yourself and trying to hear the melody in your head while playing the countermelody,” and “It was sometimes hard to make it sound good, but it was really a good challenge.” The band students had predominantly performance-based instruction in their band class and less theoretical understanding of the music medium, which may have put them at a disadvantage in composition tasks.

Throughout classroom observations, conversations with the teachers, and especially in the journal comments of the students, it was apparent that *most* of the students enjoyed the composition instruction experience. There were many comments in student journals about how much fun it was. Comments such as, “It was fun. It made you think about the feel of the music, more than just the sound, or rhythm,” and “This is cool! I would love to learn more about how to do it,” were frequent in the journal entries. Much less frequent, but still present were comments such as, “It is not my thing. I don’t know what rhythms to put next,” and “I’m bored and I’m not good at composition. I can’t make up anything.”

I was amazed at the high levels of student engagement (in both programs) when they were given a composition task to complete. During the planning stages and design of the study, the band director expressed real concern that I might be disappointed in the reaction the students had towards this new curriculum in the band classroom. However, during the instruction process he was amazed at the high level of intensity in his students as they worked on assignments. In the band program, the novelty of the experience could certainly be part of the reason for the intense interest in the activities. This was definitely a new activity for these students who were used to sitting in rehearsal for 90 minutes every day. Both teachers agreed that when presented with a composition task to accomplish there was a sense of curiosity in their students—a strong desire to see what they could do with the assignment.

In the talented music classes, where novelty was not an issue, the students were also engaged when given a composition task to accomplish. In one observation situation, I noticed a young man pull some science notes from his book bag, place them on the piano in an obvious attempt to study rather than work on the assignment. As he began to work intently on the composition assignment, the notes slipped to the floor and he did not pick them up until the bell

rang to signal the end of class. This is perhaps an example of Csikszentmihalyi's (1996) concept of "flow," which is described as "an almost automatic, effortless, yet highly focused state of consciousness" (p. 110) during creative activity. There are nine elements of flow: clear goals, immediate feedback to one's actions, balance between challenges and skills, action and awareness merge, distractions are excluded from consciousness, no worry of failure, no self-consciousness, sense of time is distorted, and activity becomes "autotelic"—the activity has an end or purpose in itself. This type of concentrated and creative learning and creative thinking may be key to the development of in-depth learning in music.

### **Assessment of the Creative Composition**

An intriguing teacher discovery regarding the creative products of students was that the most creative students might not always be those with the highest achievement in the area of performance. How do we identify and assess creativity in our students? While some studies investigate psychometric testing through analysis of musically divergent thinking skills (Gorder, 1980; Vaughan, 1971; Webster, 1977, 1994), others examine the creative product, or music compositions of children. Webster and Hickey (1995) examined implicit and explicit rating scales that were used to assess music compositions. They believe that while objective rating scales measuring musical characteristics such as number of measures, use of repetition, use of form, or metric organization may be effective in the evaluation of the some aspects of the composition, these dimensions do not effectively assess the creativity, or high-level thinking skills in the students. The present study investigated assessment of the compositions through three dimensions: creativity, craftsmanship, and aesthetic value, by three different judging groups, expert composers, teachers with experience in teaching composition, and the students themselves.

The “expert” composers were the least reliable evaluators of creativity and the teachers were the most reliable, which supported previous research by Hickey (2001). The teachers had the greatest familiarity with the abilities of their students, and the composers were working in a field far-removed from the classroom. It would be interesting to have the composers view the composition instruction in the classroom, view the students in the process of composing, and then evaluate the work that was done. Would there be a difference in the level of reliability if the composers were more aware of the student process? The fact that teachers, with no formal composition training in their own backgrounds, may be the most reliable evaluators should inspire confidence in teachers working in composition instruction. Music educators who feel somewhat uncomfortable in the area of composition instruction and assessment may have enough musical background and training to be reliable in this area.

The students were significantly, but only moderately reliable in the assessment of their own compositions. Of concern was the fact that students in the two groups were both interested in knowing which group the composition came from and what student within the group composed the piece. This information was never provided, but there was some speculation in the groups. The students were instructed not to indicate awareness when their own composition was performed; however, some could not refrain from a smile or other indication when they recognized their own composition. Anecdotally, the students seemed intrigued by the process of composition evaluation. They seemed curious to hear what other students had composed and seemed to take their assignment to evaluate the compositions very seriously. Having students make evaluative judgments of the compositions may be viewed as a benefit of this program. The seventh music content standard in the *National Standards for Arts Education* asks teachers to help students learn to evaluate music and music performances (Consortium of National Arts

Education Associations, 1994). Amabile's consensual assessment technique (CAT) encouraged evaluative judgment in the areas of craftsmanship, aesthetic value, as well as creativity.

As in previous studies (Bangs, 1992; Brinkman, 1995; Hickey, 2001; Priest, 2001, 2006), the high degree of teacher reliability makes Amabile's technique a viable tool for assessment of creativity in student music compositions. Adding students as evaluators can make the experience beneficial on multiple levels. An interesting perspective in the evaluation process used in this study was the addition of a "preference sort" on the first hearing of the compositions to be evaluated. Judges heard the compositions (1 - 30) two times and were asked to sort them as "pleasing" or "less pleasing" the first time (see Appendix F). The CAT technique was used the second time the judges heard the compositions. This idea was roughly based on the Q-Technique (Stephensen, 1953), which asked judges to rate items in relation to all other items. In the Q sort technique, items for evaluation are sorted into categories of agree/disagree or like/dislike. Then, each category can be repeatedly resorted into smaller categories until a rank order is obtained. Smith (2004) used this technique for the "assessment of musical quality" in her research with fourth grade students and their compositions for recorder. In the present study the first hearing "preference sort" allowed judges to have an initial idea of what compositions sounded like, before having to make a formal evaluation of them. I felt that in a classroom setting there would be a need to control how much time the evaluation process would take. The students would not have the time to listen to each composition multiple times in order to reach a decision. Using this technique did seem to limit the amount of time needed, making this type of evaluation by students and their teachers more practical.



## **Recognition of Creativity in High School Musicians**

Is there something in a musician's background that can help to identify and predict creativity in that student? Previous research in this area has been mixed. Webster (1977) found musical achievement to be the strongest predictor of creative potential, while others (Gorder, 1980; Hickey, 1996; Smith, 2004) found no relationship between student creativity and musical ability, experience, or aptitude. Results in the present study confirmed that tests for musical aptitude (AMMA, tonal and rhythm) had no significant relationship to creativity, craftsmanship, or aesthetic value. This musical aptitude test did not serve as a good predictor of musical creativity for these students.

Years of composition experience related significantly to craftsmanship and aesthetic value, but not to creativity. Years of experience on the student's primary instrument related significantly to creativity, craftsmanship, and aesthetic value, with creativity having the lowest correlation ( $p = .036$ ). It makes sense that more experience in composition and on the student's primary instrument could provide a higher level of ability to manipulate the medium of music and create compositions of higher technical quality (craftsmanship) and more pleasing to the listener (aesthetic value). The lack of a relationship between years of composition experience and creativity, and the low correlation between experience on their musical instrument and creativity, indicate that creativity may be a completely different construct than musicianship (technical and musical skill).

Support for separation of the constructs of creativity and musicianship comes in an examination of the top four compositions in each dimension (creativity, craftsmanship and aesthetic value). Results reveal that students in the Talented Music Program composed the highest rated pieces in the categories of craftsmanship and aesthetic value. These students had

many years of experience on their instrument (7 – 12 years) and previous composition experience (1 – 4 years). It is interesting to note that pianists composed all of the top compositions in these two categories. These students had many years of private instruction and experience in the comprehensive curriculum of the Talented Music Program. The ability to play piano and study of music in a comprehensive manner may allow the composer to play multiple voices and better understand the theoretical manipulation of music, therefore encouraging higher levels of craftsmanship and aesthetic value in their pieces.

In the area of creativity there was a different result. While the top two compositions in the dimension of creativity were from the Talented Music Program, the next two were students from the band program. These two students, one trumpet player and one flute player, had only four years of experience on their instruments and no private music instruction outside of their band program. The compositions of these less experienced and “more typical” high school musicians indicated high levels of creative thinking in music, but with much less musical experience.

It is important to view this experience as beneficial for all the students who participated, not just the ones whose compositions were rated the highest. Greater depth of musical learning and improved appreciation for the music students perform are powerful reasons to accept the results of this study as indications that creativity development should happen for all music students.

### **Use of Mixed Methodology in Creativity Research**

An examination of creativity research reveals that quantitative approaches to discovery are the most common, in the investigation of evaluator reliability (Hickey, 2001; Priest, 2006), in studies of psychometric measurement of creativity (Vaughan 1971; Gorder, 1980; Webster,

1977), analysis of composition stimulus and student motivation (Bangs, 1992; Brinkman, 1995; Ferenbach 1997; Smith, 2004; Touns-Traxler, 2008), assessment (Hickey, 2001; Priest, 2006) and analysis of the process of composition (Hickey, 1996; Kratus, 1989; Priest, 2001).

Qualitative analysis has been predominantly used to investigate the creative thinking process of students in composition activities (Burnard & Younker, 2002; Kennedy, 2002; Stauffer 2002). In the present study, the use of mixed method to investigate teacher perception, student attitude and assessment of the compositions of high school musicians provided an opportunity to study composition and creativity from two viewpoints.

Using interviews, journals and observation of students and teachers in the act of teaching and learning about composition may be the only way to “get at” the attitude and perceptions of these subjects. An additional benefit was the support the qualitative data provided to explain results of the quantitative results. In the quantitative analysis of the attitude surveys, the qualitative data allowed a clearer picture of why student attitude changed throughout the experience.

### **Recommendations for Future Research**

Possibilities for replication of this research might be to implement these types of composition activities in a band program with two levels of performing ensembles—an “advanced band program” and a “regular band program.” This may enable further study of the construct of creativity and its separation from musical skill in students from different settings, but of similar curricular scope. Expansion of the research to choral and orchestral groups is also encouraged.

The recommendations of the participating teachers to include creativity instruction in higher education teacher training programs, or in student teacher settings would also be of

interest. While composition activities may be more effective in smaller settings like the Talented Music Program, the culture and reality of most music education programs is to perform and more often resembles the high school band program. Research that continues to explore methods for implementing creativity and composition and documentation of its benefits in these settings is critical.

Many students reported in the final interview that they thought about the music that they performed in their performance-based ensembles differently following composition experience. Composition instruction provided a new lens from which to view the music they played. Further research into the connection of student composition and possible improvement in musical ability and particularly performance skill would be meaningful.

### **Lagniappe**

An unexpected and intriguing discovery for me came through my discussions with students regarding their personal beliefs about creativity. Early interviews revealed that many students felt that creative ability existed in all students, but creativity could not be taught. Also of interest was the strong feeling that creativity was equated with individuality. Comments such as, “Creativity is a way to express yourself” and “Putting your own unique quality in everything you do,” were common journal entries that described creativity. The final week of instruction in the composition program contained strategies for the development of creativity-relevant skills as described by Amabile (1996). Students discussed techniques for creative expression such as “suspending judgment,” “perceiving creatively,” and “trying not to see things in ordinary ways.” In addition they each developed a personal definition of creativity. During these discussions and in the student journals following class discussion, the students responded to the following question: “How can I learn to be more creative?” Answers indicated that students believed that

you could not learn to be more creative, but creativity could be encouraged and “unlocked” through experience. Interesting comments were: “No one can teach you how to be more creative. You are creative in many ways and your creativity may grow, but not one can teach it to you” and “Just knowing about creativity doesn’t mean you can do it.” Ways for a teacher to develop a student’s “pre-existing” creative ability were described: “As a teacher you cannot teach creativity, but you can take down roadblocks,” “A teacher can help us to channel or enhance our creativity,” and “You don’t learn creativity, it is just a skill that you have to unlock and use.” Taking down the “roadblocks” to creativity through the creative experience of music composition was important to these students and may be an additional reason for including composition as a part of the high school music curriculum. One talented music student explained:

I think every musician should compose. I feel limited if I only play things written by other people. I guess you can interpret music differently . . . creatively, but when you write something yourself, you can express yourself a lot better.

## **Conclusion**

Creswell (2007) states, “Qualitative writing has been shaped by a need for researchers to be self-disclosing about their role in the writing, the impact of it on participants, and how information conveyed is read by audiences” (p. 178). My background as a teacher involved working with high school students on composition and creativity development and certainly motivated this area of research. Certainly development of the composition lesson plans was inspired by my personal experiences teaching composition. However, in my role as “observer/participant,” I completed field observations in every session but did not interact with the students other than in the interviews. I made every effort to remain a neutral observer, even

though I was thrilled with the high levels of intensity and engagement shown—especially by the band students who had never composed before. The teachers were aware of my background and worked diligently to create positive learning experiences for themselves and their students, while helping me to discover the answers to my questions.

Composition is included as one of the nine National Standards in Music education, and teachers are encouraged to find ways to implement these standards and improve music education in our classrooms. The teachers in this study examined the challenges and discovered powerful benefits to creativity development through music composition and would be likely to consider composition activities for their students in the future. The band director and the students in the band program went on to receive superior ratings at their state festival, not harmed and possibly aided by the addition of creativity development and composition activities to their classroom. This research promoted a better understanding of the challenges, possibilities, and benefits of creativity development in high school musicians, especially in traditional performance-based classrooms and can provide a basis for further research in how to successfully implement composition activities in the music classroom.

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# APPENDIX A

## IRB EXEMPTION APPROVAL

### Application for Exemption from Institutional Oversight

Unless qualified as meeting the specific criteria for exemption from Institutional Review Board (IRB) oversight, ALL LSU research/projects using living humans as subjects, or samples or data obtained from humans, directly or indirectly, with or without their consent, must be approved or exempted in advance by the LSU IRB. This Form helps the PI determine if a project may be exempted, and is used to request an exemption.



Institutional Review Board  
Dr. Robert Mathews, Chair  
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- Applicant, Please fill out the application in its entirety and include the completed application as well as parts A-E, listed below, when submitting to the IRB. Once the application is completed, please submit two copies of the completed application to the IRB Office or to a member of the Human Subjects Screening Committee. Members of this committee can be found at [http://appl003.lsu.edu/osp/osp.nsf/\\$Content/Humans+Subject+Committee?OpenDocument](http://appl003.lsu.edu/osp/osp.nsf/$Content/Humans+Subject+Committee?OpenDocument)
- A Complete Application Includes All of the Following:
  - (A) Two copies of this completed form and two copies of parts B thru E.
  - (B) A brief project description (adequate to evaluate risks to subjects and to explain your responses to Parts 1 & 2)
  - (C) Copies of all instruments to be used.
    - If this proposal is part of a grant proposal, include a copy of the proposal and all recruitment material.
  - (D) The consent form that you will use in the study (see part 3 for more information.)
  - (E) Certificate of Completion of Human Subjects Protection Training for all personnel involved in the project, including students who are involved with testing or handling data, unless already on file with the IRB.  
Training link: (<http://cme.cancer.gov/clinicaltrials/learning/humanparticipant-protections.asp>.)

1) Principal Investigator: Elizabeth Menard Rank:                      Student? Y/N Y

Dept.: Music Education Ph: 985-768-8230 E-mail: emenar3@lsu.edu

2) Co Investigator(s): please include department, rank and e-mail for each  
If student, please identify and name supervising professor in this space

Supervising Professor: Jane W. Cassidy  
Phone: 578-3258 Email: jcassid@lsu.edu  
Office: 352 Hatcher Hall

3) Project Title: An Investigation of Creative Potential in High School Musicians: Recognizing, Promoting, and Assessing Creative Ability through Music Composition

4) LSU Proposal?(yes or no) no If Yes, LSU Proposal Number                       
Also, if YES, either ☐ This application completely matches the scope of work in the grant  
OR  
☐ More IRB Applications will be filed later

5) Subject pool (e.g. Psychology Students) High School musicians/H.S. teachers  
• Circle any "vulnerable populations" to be used: (children <18; the mentally impaired, pregnant women, the aged, other). Projects with incarcerated persons cannot be exempted.

6) PI Signature Elizabeth Menard \*\* Date 1/5/09 (no per signatures)  
\*\*I certify my responses are accurate and complete. If the project scope or design is later changed I will resubmit for review. I will obtain written approval from the Authorized Representative of all non-LSU institutions in which the study is conducted. I also understand that it is my responsibility to maintain copies of all consent forms at LSU for three years after completion of the study. If I leave LSU before that time the consent forms should be preserved in the Departmental Office.

\*\*\*Effective August 1, 2007, all Exemptions will expire three years from date of approval, unless a continuation report, found on our website, is filed prior to expiration date\*\*\*

Screening Committee Action: Exempted ☒ Not Exempted ☐ Category/Paragraph                     

Reviewer S. Kim MacGregor Signature S. Kim MacGregor Date 1/6/09

Study Exempted By:  
Dr. Robert C. Mathews, Chairman  
Institutional Review Board  
Louisiana State University  
203 B-1 David Boyd Hall  
225-578-8692 | [www.lsu.edu/irb](http://www.lsu.edu/irb)  
Exemption Expires: 1-5-2012

IRB#                      LSU Proposal#                       
☐ Complete Application  
☒ Human Subjects Training

54953

## Part 1: Determination of "Research" and Potential For Risk

- This section determines whether the project meets the Department of Health and Human Services (HSS) definition of research involving human subjects, and if not, whether it nevertheless presents more than "minimal risk" to human subjects that makes IRB review prudent and necessary.

**1. Is the project involving human subjects a systematic investigation, including research, development, testing, or evaluation, designed to develop or contribute to generalizable knowledge?**

(Note some instructional development and service programs will include a "research" component that may fall within HSS' definition of human subject research).

☒ YES

☐ NO

**2. Does the project present physical, psychological, social or legal risks to the participants reasonably expected to exceed those risks normally experienced in daily life or in routine diagnostic physical or psychological examination or testing? You must consider the consequences if individual data inadvertently become public.**

☐ YES Stop. This research cannot be exempted--submit application for IRB review.

☒ NO Continue to see if research can be exempted from IRB oversight

**3. Are any of your participants incarcerated?**

☐ YES Stop. This research cannot be exempted--submit application for IRB review.

☐ NO Continue to see if research can be exempted from IRB oversight.

**4. Are you obtaining any health information from a health care provider that contains any of the identifiers listed below?**

A. Names

B. Address: street address, city, county, precinct, ZIP code, and their equivalent geocodes. Exception for ZIP codes: The initial three digits of the ZIP Code may be used, if according to current publicly available data from the Bureau of the Census: (1) The geographic unit formed by combining all ZIP codes with the same three initial digits contains more than 20,000 people; and (2) the initial three digits of a ZIP code for all such geographic units containing 20,000 or fewer people is changed to '000'. (Note: The 17 currently restricted 3-digit ZIP codes to be replaced with '000' include: 036, 059, 063, 102, 203, 556, 692, 790, 821, 823, 830, 831, 878, 879, 884, 890, and 893.)

C. Dates related to individuals

- i. Birth date
  - ii. Admission date
  - iii. Discharge date
  - iv. Date of death
  - v. And all ages over 89 and all elements of dates (including year) indicative of such age. Such ages and elements may be aggregated into a single category of age 90 or older.
- D. Telephone numbers;
  - E. Fax numbers;
  - F. Electronic mail addresses;
  - G. Social security numbers;
  - H. Medical record numbers; (including prescription numbers and clinical trial numbers)
  - I. Health plan beneficiary numbers;
  - J. Account numbers;
  - K. Certificate/license numbers;
  - L. Vehicle identifiers and serial numbers including license plate numbers;
  - M. Device identifiers and serial numbers;
  - N. Web Universal Resource Locators (URLs);
  - O. Internet Protocol (IP) address numbers;
  - P. Biometric identifiers, including finger and voice prints;
  - Q. Full face photographic images and any comparable images; and
  - R. Any other unique identifying number, characteristic, or code; except a code used for re-identification purposes; and
  - S. The facility does not have actual knowledge that the information could be used alone or in combination with other information to identify an individual who is the subject of the information.

☐ **YES Stop.** This research cannot be exempted--**submit application for IRB review.**

☒ **NO** Continue to see if research can be exempted from IRB oversight.

**Part 2: Exemption Criteria For Research Projects  
Can be found on the next page.**

## Part 2: Exemption Criteria For Research Projects

Please select any and all categories that relate to your research. Research is exemptible when all research methods are one or more of the following five categories. Check statements that apply to your study:

-----

- ☒ 1. In education setting, research to evaluate normal educational practices.
- 

- ☒ 2. For research not involving vulnerable people [prisoner, fetus, pregnancy, children, or mentally impaired]: observe public behavior (including participatory observation), or do interviews or surveys or educational tests:

*The research must also comply with one of the following:*

- ☒ a) The participants cannot be identified, directly or statistically;

*or that*

- ☒ b) The responses/observations could not harm participants if made public;

*or that*

- ☐ c) Federal statute(s) completely protect all participants' confidentiality;
- 

- ☐ 3. For research not involving vulnerable people [prisoner, fetus, pregnancy, children, or mentally impaired]: observe public behavior (including participatory observation), or do interviews or surveys or educational tests:

- ☐ All respondents are elected, appointed, or candidates for public offices.
- 

- ☐ 4. Uses only existing data, documents, records, or specimens properly obtained.

*The research must also comply with one of the following:*

- ☐ a) Subjects cannot be identified in the research data directly or statistically, and no-one can trace back from research data to identify a participant;

*or that*

- ☐ b) The sources are publicly available



- 
- ☐ 5. Research or demonstration service/care programs, e.g. health care delivery.

*The research must also comply with all of the following:*

- ☐ a) It is directly conducted or approved by the head of a US Govt. department or agency.

*and that*

- ☐ b) It concerns only issues under usual administrative control (48 Fed Reg 9268-9), e.g., regulations, eligibility, services, or delivery systems;

*and that*

- ☐ c) Its research/evaluation methods are also exempt from IRB review.
- 

- ☐ 6. For research not involving vulnerable volunteers [see "2 & 3" above], do food research to evaluate quality, taste, or consumer acceptance.

*The research must also comply with one of the following:*

- ☐ a) The food has no additives;

*or that*

- ☐ b) The food is certified safe by the USDA, FDA, or EPA.

**Part 3: Consent Forms**

Can be found on the next page.

## APPENDIX B

### SAMPLE CONSENT FORMS, LETTERS OF SCHOOL PERMISSION

#### Parent Consent Form

**Study Title:** An Investigation of Creative Potential in High School Musicians: Recognizing, Promoting, and Assessing Creative Ability through Music Composition

**Performance Site:** Northshore High School, Slidell, LA  
St. Amant High School, St. Amant, LA

<b>Investigators:</b> Principal Investigator	Faculty Supervisor
Elizabeth Menard	Jane W. Cassidy
985 768-8230	225 578-3258
emenar3@lsu.edu	jcassid@lsu.edu
T/TH 9:00-12	MWF 9:00-12

**Purpose of the Study:** The purpose of this research project is to examine the perceptions of music teachers and their students regarding music composition instruction in the high school music classroom.

**Subject Inclusion:** Northshore High School Talented Music Students and St. Amant High School Band Students who will participate in a six week music composition program utilizing regular methods of teaching composition in their music classroom.

**Study Procedures:** This study will examine the perceptions of high school students regarding music composition instruction in the classroom as their music teacher presents researcher-designed composition activities as part of the regular class activities one day each week for a period of six weeks. Data will be gathered using pre-instruction and post-instruction guided interviews of selected students, field observation of composition instruction and activities in the classroom, and pre-instruction and post-instruction attitude surveys on student feelings regarding the benefits and challenges of composition in the high school classroom. The classroom teachers, composition experts, and the students themselves will assess a final composition project for creativity and musical technique. Every effort to maintain confidentiality of field observation and interview notes will be taken. No teachers or students will be identified in the study.

**Benefits and Risks:** The study may yield valuable information about music composition and its use in high school music classrooms. There are no risks to participants in this study.

**Right to Refuse:** Subjects may choose not to participate or to withdraw from the study at any time.

**Privacy:** Results of the study may be published, but no names or identifying information

will be included in the publication. Subject identity will remain confidential unless disclosure is required by law.

**Financial Information:** There is no cost for participation in this study, nor any financial compensation.

Thank you for your time and consideration of this investigation into music composition as a tool in the classroom. Please return this form to your child's teacher whether or not you wish for your child to participate.

**Signatures:**

The study has been discussed with me and all my questions have been answered. I may direct additional questions regarding study specifics to the investigators. If I have questions about subjects' rights or other concerns, I can contact Robert C. Mathews, Institutional Review Board, (225) 578-8692, [irb@lsu.edu](mailto:irb@lsu.edu), [www.lsu.edu/irb](http://www.lsu.edu/irb). I acknowledge the investigator's obligation to provide me with a signed copy of this consent form upon request.

**Yes, I give my permission for my child to participate.**

**Parent Signature** \_\_\_\_\_ **Parent Name (print)**\_\_\_\_\_

**Child's Name** \_\_\_\_\_ **Date** \_\_\_\_\_

Study exempted by:  
Institutional Review Board  
Dr. Robert Mathews, Chair  
203 B-1 David Boyd Hall  
Baton Rouge, LA 70803  
P: 225.578.8692  
F: 225.578.6792  
[irb@lsu.edu](mailto:irb@lsu.edu) | [lsu.edu/irb](http://lsu.edu/irb)  
Exemption Expires: 1/5/2012

## Student Assent Form

I, \_\_\_\_\_, agree to participate in a study that investigates the perceptions of high school musicians regarding music composition as a part of classroom instruction. I will participate in the composition activities as they are presented by my teachers and agree to be interviewed regarding my feelings about the composition activities. I will complete the attitude surveys when they are presented. I understand that I may choose not to participate in the interviews, or complete the attitude surveys at any time.

Student signature: \_\_\_\_\_ Age \_\_\_\_\_

Student name (print): \_\_\_\_\_ Date \_\_\_\_\_

Witness: \_\_\_\_\_ Date \_\_\_\_\_

(Witness was present for the assent process)

Study exempted by:  
Institutional Review Board  
Dr. Robert Matthews, Chair  
203 B-1 David Boyd Hall  
Baton Rouge, LA 70803  
225-578-8692  
irb@lsu.edu | lsu.edu/irb  
Exemption expires: 1/05/2012

## Teacher Consent Form

**Study Title:** An Investigation of Creative Potential in High School Musicians: Recognizing, Promoting, and Assessing Creative Ability through Music Composition

**Performance Site:** Northshore High School, Slidell, LA  
St. Amant High School, St. Amant, LA

<b>Investigators:</b> Principal Investigator	Faculty Supervisor
Elizabeth Menard	Jane W. Cassidy
985 768-8230	225 578-3258
emenar3@lsu.edu	jcassid@lsu.edu
T/TH 9:00-12	MWF 9:00-12

**Purpose of the Study:** The purpose of this research project is to examine the perceptions of music teachers in the regarding music composition instruction in the high school music classroom.

**Subject Inclusion:** Northshore High School Talented Music Teacher and St. Amant High School Band Director

**Number of subjects:** 2

**Study Procedures:** This study will examine the perceptions of teachers regarding the use of music composition in the high school music curriculum as they implement a researcher-designed program of composition activities for their students. Data will be gathered using pre-instruction and post-instruction guided interviews, field observation of composition instruction in the classroom, and teacher journaling regarding their feelings of the benefits and challenges of composition in the high school music classroom. Following instruction, the classroom teachers, the students themselves, and composition experts will assess the final composition project. Every effort to maintain confidentiality of field observation and interview notes will be taken. No teachers or students will be identified.

**Benefits and Risks:** The study may yield valuable information about music curriculum in the high school music classroom. There are no risks to participants in this study.

**Right to Refuse:** Subjects may choose not to participate or to withdraw from the study at any time.

**Privacy:** Results of the study may be published, but no names or identifying information will be included in the publication. Subject identity will remain confidential unless disclosure is required by law.

**Financial Information:** There is no cost for participation in this study, nor any financial compensation.

Thank you for your time and willingness to participate in this study. Please return this form to the principal investigator as soon as possible.

**Signatures:**

The study has been discussed with me and all my questions have been answered. I may direct additional questions regarding study specifics to the investigators. If I have questions about subjects' rights or other concerns, I can contact Robert C. Mathews, Institutional Review Board, (225) 578-8692, [irb@lsu.edu](mailto:irb@lsu.edu), [www.lsu.edu/irb](http://www.lsu.edu/irb). I agree to participate in the study described above and acknowledge the investigator's obligation to provide me with a signed copy of this consent form.

**Subject Name (print)** \_\_\_\_\_

**Subject Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

Study exempted by:  
Institutional Review Board  
Dr. Robert Mathews, Chair  
203 B-1 David Boyd Hall  
Baton Rouge, LA 70803  
P: 225.578.8692  
F: 225.578.6792  
[irb@lsu.edu](mailto:irb@lsu.edu) | [lsu.edu/irb](http://lsu.edu/irb)  
Exemption Expires: 1/5/2012



## ST. AMANT HIGH SCHOOL

**STEVE WESTBROOK – PRINCIPAL**  
12035 HWY. 431  
ST. AMANT, LOUISIANA 70774-3499  
(225) 621-2565

**ASSOCIATE PRINCIPAL**  
Maurice Swinney  
**ASSISTANT PRINCIPALS**  
Mia Edwards  
Frances Grayson  
Edith Walker

To Whom It May Concern:

Elizabeth Menard has discussed with me her Ph.D. research study, *An Investigation of Creative Potential in High School Musicians: Recognizing, Promoting, and Assessing Creative Ability Through Music Composition*. This project has been approved to occur with the band classes at St. Amant High School.

Respectfully Submitted,

Steve Westbrook, Principal  
St. Amant High School  
225-621-2565  
[Steve.Westbrook@apsb.org](mailto:Steve.Westbrook@apsb.org)

*An Equal Opportunity Employer*





## NORTHSHORE HIGH SCHOOL

100 Panther Drive Slidell, Louisiana 70461 (985) 649-6400

Dr. Michael R. Peterson  
Principal

Mr. Frank J. Jabbia  
Vice Principal

Mr. Harry Dixon, III  
Vice Principal

Mrs. Cheryl W. Yeates  
Vice Principal

March 18, 2009

Dear Sir or Madam:

Ms. Elizabeth Menard had my permission to conduct her research study,  
*An Investigation of Creative Potential in High School Musicians:  
Recognizing, Promoting, and Assessing Creative Ability through  
Music Composition*, at Northshore High School.

It is with positive expectation that I anticipate the success of Ms. Menard's  
research.

Sincerely,

Dr. Michael R. Peterson, Ph.D.  
Principal  
Northshore High School



APPENDIX C  
CREATIVITY ASSESSMENT STUDENT DATA

**Student Data Form**

Please complete the following form:

Name \_\_\_\_\_

Grade \_\_\_\_\_ Age \_\_\_\_\_

School \_\_\_\_\_

What is your primary instrument/voice? If voice, what part? \_\_\_\_\_

How many years of experience singing or playing this instrument?

Have you studied this instrument privately? (circle one)    yes                      no

If so, how many years? \_\_\_\_\_

Do you sing or do you play any other instruments? If so, which ones?

Have you ever composed music before? (This means creating a piece of music that has been notated or recorded in some way, so that it may be played or sung again.)  
yes                      no

Have you had composition instruction? (from a teacher, either private or in your school music classes)  
yes                      no

If so, how many years? \_\_\_\_\_

Describe your composition instruction and experience.

## APPENDIX D

### HIGH SCHOOL MUSIC COMPOSITION LESSON PLANS

#### WEEK ONE – LISTENING FOR MUSICAL CONCEPTS

##### Objectives:

- The students will define the musical concepts of texture, motive, style, form, melody, countermelody, and harmony through class discussion.

##### Suggested Instructional Strategies:

- Following the discussion, with the concepts list written clearly on the board, they will listen to recordings, which provide examples of each of these concepts. The discussion and listening should initially involve pieces that the students may be familiar with.
- Through the process of class discussion, students will identify the concepts in the pieces they hear.

##### Materials: CD Recordings, to be selected from:

- Recordings of band music they know or music they have played
- Mussorgsky, *Pictures at an Exhibition*
- Beethoven, *Symphony no. 5*
- Adams, *Short Ride in a Fast Machine*
- Turangalila *Symphony*
- Brubeck, *Take Five*
- Gregorian Chant
- Zachary Richard, *Iko, Iko*
- Robert Robinson, *Come Thou Fount of Every Blessing*
- Saint-Saëns, *Bacchanale*, from “*Samson and Delilah*”

##### Composition Activity:

- Worksheet asks students to creatively choose 5 notes and create a melody from a provided rhythmic example. This is rhythmically guided, but the students should have complete melodic freedom on this first composition exercise. Both bass and treble clef staves are provided.

## WEEK TWO – ANTECEDENT/CONSEQUENT PHRASES AND TONALITY/ATONALITY

### Objectives:

- The students will recognize and be able to create question and answer phrases in a tonal and in an atonal setting.
- Using singing voices, keyboard, or their own band instrument, the students will create consequent phrases to the teacher's antecedent phrase.
- Students will demonstrate how to "end the conversation" or "continue the conversation" with an understanding of tonality.
- Students, working in groups will explore methods of creating antecedent/consequent phrases with no key center.

### Suggested Instructional Techniques:

- Beginning with a familiar tune (i.e. Twinkle, Twinkle), the teacher will help students to understand which is the question phrase (antecedent) and which is the answer phrase (consequent). Choose students to create *new* answers to the antecedent phrase. Stress that in tonal music, the answer usually ends on the tonic, while the question ends on a note other than the tonic.
- Teacher creates a *new* question and asks volunteers to respond.
- Explain that it is possible to have more than one question before the answer is given. This creates a musical "conversation."
- Explain the concept of atonality—musical conversations that happen with no tonic. This type of conversation is often related through repeated rhythm patterns.

### Composition Activity:

- Working in groups of two or three, the students will write complete antecedent/consequent examples. Each example must have a minimum of two questions and one answer. If there is time, have some groups perform their antecedent/consequent conversation for the class.

## **WEEK THREE – COMPOSITION USING TEXTURE, RHYTHMIC MOTIVES & FORM**

### Objectives:

- Students and teacher will review the concept of texture, rhythmic motive and form in music and discuss differences between percussive and melodic textures.
- The students will create four part compositions that use complimentary rhythms and indicate an understanding of form.

### Suggested Instructional Strategies:

- Teacher will lead the class in the creation of different rhythms (four) that complement each other. Form will be introduced by identifying the first combination of rhythms as the A section.
- The class will then create a B section that demonstrates significant change from the A (i.e. fewer voices, differing rhythms, differing textures). Different form possibilities will be identified: AB, ABA, etc.
- Working in small groups, using non-traditional materials that may be found in book bags (pencils, rulers, etc.) or body percussion (clapping, stomping, snapping, etc.) the students will create as many different percussive textures as they can imagine.
- Using the created textures, the students will create different rhythmic motives, and textures that compliment each other.

### Composition Activity:

- In groups of four, students will create short composition demonstrating, change in texture, motive and form and demonstrate their compositions for the class. Manuscript paper may be used to help organize and remember the compositions, but formal notation is not required.

## **WEEK FOUR – MELODIC MOTIVE DEVELOPMENT, POWER OF REPETITION**

### Objectives:

- Students will review the concept of melodic motive. The students will listen to a recording of a Bach Fugue or band piece that they are currently working on and identify the thematic motive that is used in the example. Using the technique of SCAMPER (Hickey, 1997), The class will identify ways in which the main motive has been manipulated or changed by the composer.

### Suggested Instructional Strategies:

- The teacher will present an example of motive (taken from the listening) to be manipulated using technique of SCAMPER (Hickey, 1997).
- S – substitute
- C – combine
- A – add
- M – minimize (diminution) or magnify (augmentation)
- P – put to other uses (other instruments)
- E – eliminate
- R – rearrange, reverse
- With student input, demonstrate these techniques at the board.

### Evaluation:

- On manuscript paper, the students will create a melodic motive of their own and demonstrate the manipulation methods discussed in class in a notation exercise.

## WEEK FIVE – MELODY/COUNTERMELODY DEVELOPMENT

### Objectives:

- The student will identify the role of counter melody as creating support or interest for a main melody.
- The class will receive a handout with the traditional melody, *Amazing Grace*, notated with an empty staff above and below. Working as a class the students will decide what notes and rhythms would create a successful counter melody.

### Suggested Instructional Strategies:

- Have class listen to an example of melody alone, and then melody with counter melody.
- At the board, while students work with a handout, create a counter melody to the traditional melody *Amazing Grace*. Help students to understand that (in tonal music) intervals of a third, or sixth are consonant, intervals of a fourth or fifth less so, and second and sevenths create dissonance or musical tension.

Composition Activity: Each student will create his or her own counter melody to *Amazing Grace*.

## WEEK SIX – CREATIVITY SKILLS/WHAT INSPIRES YOU?

### Objectives:

- Students will discuss methods of composing creatively using Amabile's Creativity Relevant Skills (Amabile, 1996). With each skill, students and teacher will compose a short example on the board to demonstrate the concept.
  - Try not to see things in ordinary ways.
  - Abandon a solution to the problem that doesn't work and go in a totally different direction
  - Keep response options open as long as possible
  - Suspend judgment
  - Perceive creatively

### Suggested Instructional Strategies:

- Pass out the handout with Creativity Relevant Skills listed on it.
- Using a motive written on the board, have the students think of ways to demonstrate each skill.
- What inspires you? Encouraged to think creatively, ask the students to create a list of possible stimuli for compositions concept. List these stimuli on the board. The students should come up with ideas such as:
  - Art work
  - Poems, lyrics
  - Emotions
  - Memories
  - Rhythmic patterns
  - Melodic Patterns

### Composition Activity:

- From the student-created list of stimuli, each student will compose a short work and identify what the stimulus for their work. This could be done by giving their piece a title, or in a short paragraph following the brief work. This composition is to free, guided only by the source of inspiration.

## APPENDIX E

### FINAL COMPOSITION PROJECT FORM

#### Final Composition Project

Write a one or two voice composition for **12 to 24** measures. Your composition should have a beginning, middle and an end. Use the following guidelines:

- You may choose your own clef, key signature, and time signature.
- Please indicate a title for your work on the title line.
- Put your name on the line to the right as the composer
- You may use any of the materials you have from our composition lessons
- Remember the following techniques to help organize your project:
  - musical question and answer phrases
  - motive manipulation (SCAMPER)
  - texture and form
  - countermelody
- You may indicate which instrument should play each voice.
- Finally, think of the creativity relevant skills discussed in class to make your composition unique and a demonstration of your creativity!

You will have 50 minutes to complete your creative composition! Good luck.

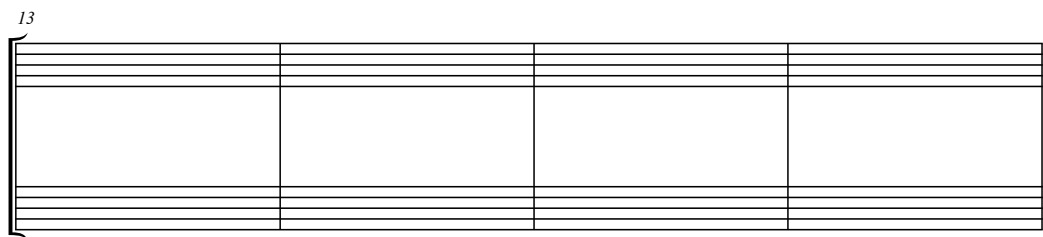
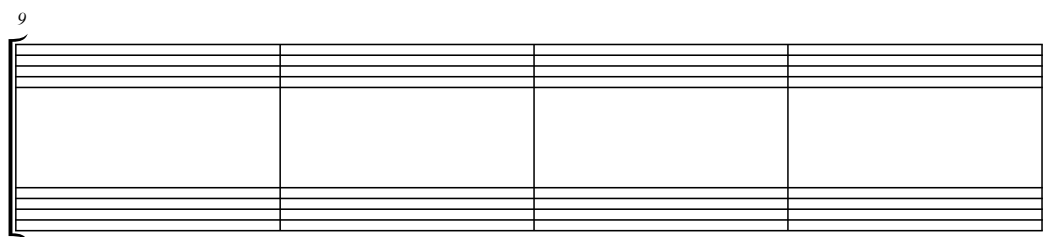
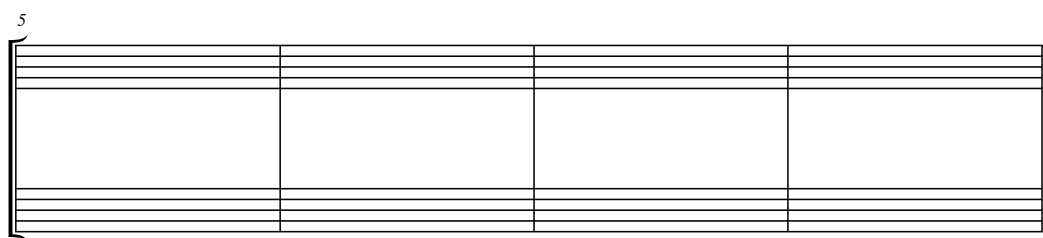
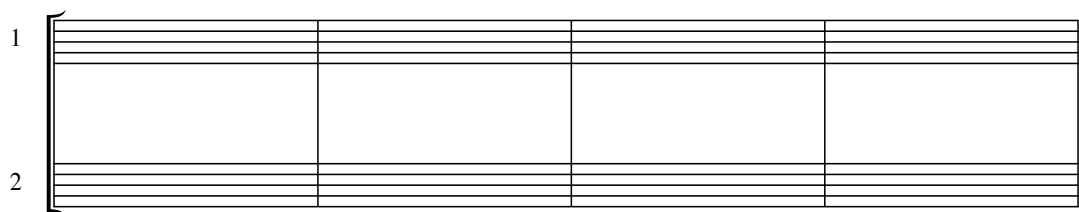
\_\_\_\_\_ (Title)

(Composer)\_\_\_\_\_

1				
2				

5				





## APPENDIX F

### COMPOSITION RATING FORM

Name of Evaluator \_\_\_\_\_

#### Directions:

You will hear the compositions two times. On the first hearing, you should sort them by listing the composition numbers under the “Pleasing” category, or “Less Pleasing” category. This will help you to determine higher and lower scores. After listening to each student’s composition the second time, please rate it according to the 3 dimensions listed below (Low = 1, High = 5). Put an ‘X’ on the line that best represents your assessment. For each of the dimensions, use your own subjective definition of the quality to be evaluated.

**First hearing:** list the composition numbers in the proper category

PLEASING

LESS PLEASING

#### Second Hearing:

Composition Number

Low = 1 High = 5

1. Creativity: The degree to which the composition is creative.

1 — — — — 2 — — — — 3 — — — — 4 — — — — 5

2. Craftsmanship: The degree to which the composition contains craftsmanship qualities.

1 — — — — 2 — — — — 3 — — — — 4 — — — — 5

3. Aesthetic Appeal: The degree to which the composition is aesthetically pleasing.

1 — — — — 2 — — — — 3 — — — — 4 — — — — 5

Composition Number  Low = 1 High = 5

1. Creativity: The degree to which the composition is creative.

1 — — — — 2 — — — — 3 — — — — 4 — — — — 5

2. Craftsmanship: The degree to which the composition contains craftsmanship qualities.

1 — — — — 2 — — — — 3 — — — — 4 — — — — 5

3. Aesthetic Appeal: The degree to which the composition is aesthetically pleasing.

1 — — — — 2 — — — — 3 — — — — 4 — — — — 5

Composition Number  Low = 1 High = 5

1. Creativity: The degree to which the composition is creative.

1 — — — — 2 — — — — 3 — — — — 4 — — — — 5

2. Craftsmanship: The degree to which the composition contains craftsmanship qualities.

1 — — — — 2 — — — — 3 — — — — 4 — — — — 5

3. Aesthetic Appeal: The degree to which the composition is aesthetically pleasing.

1 — — — — 2 — — — — 3 — — — — 4 — — — — 5

Composition Number  Low = 1 High = 5

1. Creativity: The degree to which the composition is creative.

1 — — — — 2 — — — — 3 — — — — 4 — — — — 5

2. Craftsmanship: The degree to which the composition contains craftsmanship qualities.

1 — — — — 2 — — — — 3 — — — — 4 — — — — 5

3. Aesthetic Appeal: The degree to which the composition is aesthetically pleasing.

1 — — — — 2 — — — — 3 — — — — 4 — — — — 5

## APPENDIX G

### INTERVIEW QUESTIONS

#### **Preliminary Teacher Interview Questions**

1. Could you tell me about your background and training as a music teacher?
  - a. How did you get here?
2. What is your definition of creativity?
3. What is your definition of composition?
4. What are your feelings about the national standards in music?
  - a. Which standards do you identify as more important than others for the students?
  - b. Which standards are ***you*** more comfortable with?
  - c. What are some challenges for you in teaching all nine standards?
5. Standard 4 identifies composing and arranging music as a necessary part of a comprehensive music program. What are your feelings about composition in the high school band (performance) program or general music classroom?
  - a. Do you feel that your undergraduate music education teacher-training program provided you with training to teach composition? Describe your training.
  - b. Do you find any value in teaching composition in the music classroom?
6. If you were required to teach a composition unit, how might you include composition activities in your music curriculum?
7. How might you develop student creativity in the music classroom?
  - a. Is it *possible* to teach creativity and how might you do it?
  - b. Describe characteristics and/or behaviors of students in your program that you feel have greater creative potential than others?
  - c. In what types of activities can we encourage creativity? Performance? Improvisation?
8. Given a perfectly funded setting, and all the time you needed to teach music, how would you design a comprehensive music program in your classroom?

### **Preliminary Student Interview Questions**

1. Please tell me about your background and training as a musician?
  - a. What instruments do you play?
  - b. Are you comfortable singing?
  - c. Describe the music classes that you have taken, or are taking.
2. What is your definition of creativity?
3. What is your definition of composition?
4. Are you a creative musician? Why or why not.
5. Describe any composition experiences that you have had in your school music classroom.
6. Describe any composition experiences that you have had outside the school music classroom.
7. What might be some good things about adding composition activities to your music classroom?
8. What would you think might be problematic about adding composition activities to your music classroom?
9. How might you recognize creativity in an individual?
10. How does one learn to be more creative?
  - a. Is it important to be creative?
  - b. Why, or why not?

### **Teacher Final Interview Questions**

1. What is your definition of creativity? Has it changed at all over the past 8 weeks?
2. What is your definition of composition?
3. What were some problems you encountered while concluding this series of composition lessons in your music curriculum?
4. Were there any positive aspects to including these composition activities in your class planning?
5. Describe any training you have had to prepare you to teach composition.
6. What type of training in a college music education curriculum would help to better prepare you to teach composition?
7. Can creativity be developed? What is the teacher's role in the development of creativity?
8. Do you think you will try to include music composition as a regular part of your curriculum? Why or why not?
9. Are there any general thoughts about creativity and composition you would like to share?

### **Student Final Interview Questions**

1. What is your definition of creativity?
2. What is your definition of composition?
3. Have your feelings about composition changed over the past eight weeks of composition instruction?
4. Does learning about music composition change the way you think about music? Does it improve your musical understanding? How?
5. What were the negative things about the composition lessons you participated in?
6. What were good things about the composition lessons you participated in?
7. Do you consider yourself to be a creative musician?
8. How does one develop creativity or learn to be more creative?
  - c. Is it important to be creative?
  - d. Why, or why not?
9. Are there any general thoughts about creativity and music composition that you would like to share?

APPENDIX H

JOURNAL FORMATS

**COMPOSER JOURNAL**

How I feel about...

- Class activities today
- Composition in general

Things (feelings, concepts, pictures) I would like to express through music....

## Composition ideas I have...

[illegible]



## TEACHER JOURNAL

**Identify the activity for today's class:**

**How did *you* feel about class activities today?**

**How did your *students* react to today's activities?**

**General comments...**

# APPENDIX I

## COMPOSITION EVALUATION DESCRIPTIVE DATA

Comp #		Instrument Exp (Yrs)	Composition Exp (Yrs)	Creativity	Craftsmanship	Aesthetic Value
1	Band	6	0	33.33	27.33	26.67
2	Band	5	0	34	36	38
3	Band	5	0	33.33	40.67	18.67
4	TM	7	4	35.33	43.33	42.67
5	Band	7	0	39.33	38	39.33
6	Band	4	0	24	19.33	16.67
7	Band	4	0	34.67	34	32
8	Band	4	0	27.33	24.67	22
9	Band	6	0	40.67	38.67	39.33
10	TM	12	3	28	28.67	26
11	TM	12	2	46	48.67	49.33
12	TM	8	2	29.33	41.33	37.33
13	TM	6	1	38	42.67	37.33
14	Band	6	0	28	33.33	32.67
15	TM	6	3	40.67	40.67	38
16	Band	4	0	34	20	16.67
17	TM	8	2	36.67	42	43.33
18	Band	6	0	32.67	31.33	32
19	TM	7	1	42.67	45.33	45.33
20	Band	4	0	44	40.67	46
21	Band	4	0	43.33	30.67	39.33
22	Band	4	0	40	40	38
23	TM	10	3	46	47.33	47.33
24	TM	8	3	40	40	32.67
25	Band	5	0	32	21.33	26
26	Band	2	0	18.67	20.67	16.67
27	Band	10	0	28	30	30.67
28	Band	5	0	30	24	24.67
29	Band	4	0	30	28.67	28.67
30	Band	1	0	20.67	22	20.67

Note. Creativity, craftsmanship, and aesthetic value data are averaged teacher scores, from the CAT evaluation in each dimension. Scores have a possible range of 10 – 50.

## APPENDIX J

### STUDENT COMPOSITIONS WITH HIGHEST CREATIVITY RATINGS

#### Etude

piano experience - 12 years  
piano private instruction - 12 years  
composition experience - 2 years

5

9

14

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# Sun Shower

piano experience - 10 years  
piano private instruction - 10 years  
composition experience - 3 years

piano

The musical score for 'Sun Shower' is written for piano in G major (one flat) and common time. It consists of four staves of music. The first staff begins with a treble clef and a key signature of one flat. The melody starts with a quarter note G4, followed by an eighth note A4, a quarter note B4, and a quarter note A4. The second staff continues the melody with a quarter note G4, a quarter note F4, a quarter note E4, and a quarter note D4. The third staff features a half note C4, followed by a quarter note B3, a quarter note A3, and a quarter note G3. The fourth staff concludes the piece with a half note F3, a quarter note E3, a quarter note D3, and a final half note C3. The score includes measure numbers 4, 7, and 11, indicating the start of new phrases or measures.

# Peanuts and Cracker Jacks

Flute

$\text{♩} = 108$

*ff* *p* *f* *accel.* *a tempo* *tr* *mf* *ff*

4 7 10 13 16

flute experience - 4 years  
private instruction - 0 years  
composition experience - 0 years

# Safari

trumpet experienc - 4 years  
private instruction - 0 years  
composition experience - 0 years

Trumpet in B $\flat$  1

Trumpet in B $\flat$  2

B $\flat$  Tpt. 1

B $\flat$  Tpt. 2

B $\flat$  Tpt. 1

B $\flat$  Tpt. 2

8 muted

B $\flat$  Tpt. 1

B $\flat$  Tpt. 2

11 take out mute

Dissonant

## VITA

Elizabeth Menard holds a Bachelor of Music Education from Southern Methodist University (1979) and a Master of Music from Louisiana State University (2006). She served as an evaluator of musical talent, teacher assessor, and classroom teacher in Louisiana's Talented Arts Program for over 20 years. This program identifies talented student musicians and serves them in a comprehensive musicianship classroom setting. She also served as chair of the Louisiana State Department of Education committee to design its Evaluation Program for Talent in Music. Ms. Menard worked with the piano pedagogy department at Loyola University, New Orleans, for 12 years as a group and private piano instructor in the preparatory music program. In addition to her education duties, Ms. Menard is a freelance musician and has performed with the Louisiana Philharmonic Orchestra, the Acadiana Symphony, and served as principal oboist with the Gulf Coast Symphony Orchestra.

Ms. Menard has presented research at regional and national conferences such as the National Association of Gifted Children, College Music Society, and the Music Educator's National Conference. Ms. Menard currently teaches in the College of Musical Arts at Bowling Green State University in Ohio. Her duties include serving as the director of BGSU's Music Plus program and teaching graduate and undergraduate courses in music education.